Southwest Alaska Network
Data Management Plan
Appendices

The first number of the appendix correlates with chapters.

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Appendix 3-1:

Information Deliverables Specifications for Research

Southwest Alaska Network

Deliverable Checklist and Description

Information Deliverables Specifications for Research Projects
Southwest Alaska Network
Deliverable Checklist

Version: September 8, 2006

Project Name: _____
Original Date: _____
Contract: _____
NPS Project Contact: _____
Principal Investigator: _____

Deliverable	Due Date	Date Completed	Notes
Study Plan			
File Organizer			
Permit			
Project Log			
Field Data Sheets			
Tabular Data			
GIS Data			
Photographs			
Data Collection Protocols			
Record of Protocol Changes			
Data Documentation			
Information Discovery			
Reports – Field reports			
Reports – Annual reports			
Reports – Final Report			
Reports – IAR			
Maps			
NPSpecies – data entry review			
NPSpecies – Certification			

Location of Materials (in-house):
Physical files: _____

Electronic files: _____

Notes/Specifications:

Information Deliverables Specifications for Research Projects Southwest Alaska Network

Guidelines last updated: September 8, 2006

Revision Date:	Revised by:	Revision Description
May 10, 2004	D. Mortenson	Original form
Sept 8, 2006	D. Mortenson	Revised to update GIS Datum, Tabular data format requirements, and spelling/grammar errors.

Purpose:
Management decisions are made based on the information obtained from research projects. The information deliverables listed here provide the archival record to help substantiate management decisions now and in the future.

This document describes the products that should appear on the SWAN Resource Management Project server, or a CD or DVD delivered to the park on a yearly basis as the principle component of project deliverables. Most of the items described below reflect good management practices that would be undertaken in one form or another by most projects. Because this document labels, lists and discusses these practices, the deliverables list appears lengthy, a bit daunting perhaps.

Experience has shown that, although it is a significant time investment to complete all these items, they all become **critical** at some stage of most projects. Without the tracking items and documents described below, information is often lost or resurrected from memory. It should be expected that approximately 30% of all project effort goes towards data management.

To facilitate good project data management, SWAN will provide examples, advice and review of the products described below. We have found that if project technicians are given concrete data management tasks at the beginning of a project, producing the deliverables listed below becomes a relatively simple process. If a project waits until the end of the field season to start data management it defeats the purpose of some items and becomes an exercise instead of an asset. To help understand the additional effort involved in producing the deliverables each section contains an Efforts component.

If the documents and data described below are maintained on a regular basis, producing the yearly deliverable product should be as simple as taking the entire project folder structure, copying it to a CD and delivering it to the SWAN Data Manager.

Definitions:
A 'research project' or 'project' is the sum total of all documents and actions taken under the auspices of a NPS Research Permit.

Audience:
This document is intended for project leaders, principal investigators ,data managers, the network coordinator and others to clarify expectations of deliverables and to assist with the Annual Administrative Report and Work Plan (AARWP), Data Audit Reports, and other NPS reporting requirements.

Scientific Data Deliverables

By April of the calendar year following funding, the researcher will provide the NPS with a CD or DVD containing the following organized and documented information:

- Study plan
- File organizer

- Project Log
- Field data sheets
- Tabular data
- GIS data
- Photographs
- Data collection protocols
- Record of Protocol Changes
- Data documentation
- Information discovery
- Reports

Multi-year projects will deliver data on a yearly basis.

Study Plan

Description:

The Study Plan submitted as part of the project proposal should be considered a static document that defines how a project was envisioned. The Study Plan should be used as a starting point for the Data Collection Protocols defined below.

Effort:

Other than creating a single link to the Study Plan from the Project Organizer, the Study Plan as a deliverable should require no additional time efforts.

Permit

Description:

Each park unit requires a permit when working in the park. Projects where collections will be taken require additional time for processing.

Effort:

Project leader applies online for a permit. Park permitting officer will review and ensure appropriate park staff have reviewed prior to approval. Permitting officer requires an Investigator Annual Report at the close of every year to summarize the work that was completed.

File Organizer

Description:

The project organizer acts much like a web 'home' page – it is the key document for finding all data and documents for the project. Hyperlinks on the File Organizer link to every deliverable category discussed below.

The purpose of the project organizer is to:

- Enable long-term access to the project methods, analysis and raw data.
- Help project personnel organize and find project documents and data.
- Help park managers access and understand the project data, results and management implications.

The File Organizer enables decision makers to become familiar with the project and to gain confidence in project the methods and results. Ideally someone completely unfamiliar with a project should be able to open the File Organizer links and safely and efficiently go out and collect, process, analyze and report data for the project.

Guidelines:

File Organizer Template. – An MS Word or html document that lives in the root folder of the project. Examples are available from the SWAN Data Manager. The File Organizer should be renamed to "index.doc".

Effort:

At least one project technician should be assigned to maintain the File Organizer on a bi-weekly basis. Key to success is to emphasize the importance of keeping the Organizer current form the start of the project.

Project Log

Description:
The Project Log is a MS Word file that documents significant project events such as field data collection trips, project meetings, data processing progress, analysis progress, and report writing.

Effort:
One hour per week.

Field Data Sheets

Deliverable:
Field data sheets should be organized into a collection (e.g., in a 3-ring binder or book-box) on an annual basis at a minimum. Ideally, field data sheets will be scanned and linked to the appropriate data record in the project database. If a project wishes to do this, please contact the SWAN Data Manager for assistance.

Description:
The researcher will provide all completed field data sheets as copies, and preferably, as scanned images of the original data sheets. At the top of each page on the field sheet will contain the following information:

1) Date
2) Page number (preferably page number of number of pages)
3) Short name of project
4) Name of note taker and observers

Notes should be clearly printed and dark enough to be legible if copied or scanned.

Effort:
Data sheets will need to be organized by a project regardless of the deliverables requirement. Providing copies to the park as a deliverable may require about 2 days per year of effort to copy, organize and deliver. The preferred format is a scanned document linked to the database.

Tabular Data

Deliverable:

- MS Access XP or higher database.
- Database Design and Description written and provided in MS Word.

Description:
The preferred storage of tabular field data is in relational MS Access XP or higher databases. Whenever possible the database design should use existing database templates. Contact the Data Manager for the most current template.

If there is no appropriate database template, the data structure should follow the guidelines presented in
The following guidelines:

- Alaska Support Office. 2002. National Park Service, Database Specifications for Inventory and Monitoring Studies.
- Alaska Support Office. 2002. National Park Service, Recommended Database Strategies including I&M Database Templates.
- Alaska Support Office. 2002. National Park Service, Recommended Naming Standards.
- Cotterman, J. and D. Mortenson. 2006. Microsoft Access Database Application Specifications. Southwest Alaska Network. Anchorage, AK.

These guidelines also describe quality control procedures for data entry.

Database design needs to be reviewed and approved by the Data Manager before data entry is started. The Data Manager will review the database design for consistency with NPS database design strategies and to understand the database. If the Principal Investigator is unfamiliar with relational databases and database design, he or she should contact the Data Manager to make arrangements.

There are instances where other data formats are acceptable, especially where automated data collection instruments minimize or eliminate the possibility of data entry error. In such cases dbf, delimited text or other electronic formats may be acceptable. All non-Access formats must be approved by the Data Manager prior to initiation of data collection.

If MS Excel is used, the Excel spreadsheet should follow the Recommended Naming Standards as described in the guidelines above and should be easily imported into Access.

FGDC compliant metadata should be provided for all data. Database design, attribute descriptions, table relationships, and data verification should be provided in a Database Design and Description document.

Data in each database should be reviewed and corrected using an approved verification method, such that data entry accuracy is 95% or greater. A description of the verification method and results will be included in the Database Design and Description document accompanying this database.

Effort:
Database design is time consuming and critical. It should be scheduled at the very earliest stages of a project to maximize benefit. A contracted database designer using an existing NPS template should be able to complete the basic structure in 2 – 3 weeks for about $3000 - $5000.

Database documentation can be started early as accurate descriptions of all database objects. This can take about 2 days for a modestly complex database. Complete documentation should occur at the end of the project or at the end of the first 2 years.

Tabular data will need to entered and stored electronically regardless of the deliverables requirement. Minimal additional effort should be required beyond the database design and documentation.

GIS Data

Deliverables:
- ArcGIS coverage or shapefile
- Legend data (Layer file)
- Full FGDC compliant metadata
- Map products stored in uncompressed TIF files and PDF
- Related ancillary data

Description:
All field data which has a location associated with data collection should be considered GIS data and GIS data layers should be delivered. Note that many large complex projects produce a relatively small GIS layer. This layer documents data collection sites and store the bulk of the field data in a relational database. Analysis with GIS can create many additional layers. Analysis and summary GIS layers which provide significant insights should be delivered.

All aerial flights over the park should be documented as a GIS flight line layer.

GIS layers should include layers presenting and summarizing the current year's data. If the project spans multiple years, GIS layers should present and summarize the data for the entire project dataset.

GIS layers should be in the NPS Alaska standard datum of NAD83, Alaska Albers Equal Area Projection.

FGDC compliant Metadata for all GIS layers should be provided.

Guidelines:

- National Park Service. 2002. GIS Specifications for Resource Mapping, Inventories and Studies.
- National Park Service. November 2003. GPS for GIS Workflow website. Reviewed 3/16/2004 from http://www.nps.gov/gis/gps/gps4gis/

Effort:
GIS data will need to entered and documented regardless of the deliverables requirement. Minimal additional effort should be required to comply with the deliverables requirement.

Photographic Data

Deliverables:

- Well organized photographs in electronic format (JPG or uncompressed TIF)
- Contact sheet(s) of photos
- ThumbsPlus catalog file with metadata

Purpose:
Photos taken for a project should serve the project's needs. These needs can vary greatly. The projects needs may be driven by site, time, specimen, or method. Photos collected as part of the Data Collection Protocol are data and should be organized in a folder structure beneath the project database. Data photos should be linked to the project database.

Description:
All photographs should be provided in high resolution digital format on CD or DVD, and should be cataloged using ThumbsPlus or other approved cataloging software. Metadata for each photograph should be complete, following the guidelines provided. Medium and low resolution images should be included if they are integrated into the project databases.

Naming Standards:
The naming strategy used for photos should be documented in the Project Organizer, using the naming convention guidelines described above. File names should assist in the linking of the projects data and the photograph. Projects with a limited number of photos (<50) may elect to be descriptive with file names. Projects with larger number of images (>50) may elect a sequential image naming standard. For example: SWAN_2002_BlackBearStudy_001.jpg Please refer to the guidelines for more specific instructions on managing photographs.

Guidelines:
SWAN and SEAN 2004. Digital Photographs Management Strategy for Alaska Inventory and Monitoring Program. National Park Service.

Effort:
Effort to organize and link data photos varies tremendously depending on the number of photos collected and the database they are linked to. If thousands of data photos are to be collected then a substantial effort should be made to construct database forms to facilitate data photo entry.

Data Collection Protocols

Deliverable:

Protocols written and provided in MS Word.

Description:
Data collection protocols are a major component of the data deliverables. They should provide detailed descriptions of how the data is collected. They should include a complete description how data was collected for each data field on the data collection forms.

Guidelines:
Oakley, Karen, L. Thomas, S Fancy. 2003. Guidelines for Long-term Monitoring Protocols. On website:
http://science.nature.nps.gov/im/monitor/protocols/ProtocolGuidelines.pdf

Effort:
Data collection protocols are a major time commitment. Expect to expend 5% of a project time on data collection protocols in the first two years. Thereafter effort should decrease substantially.

Record of Protocol Changes

Description:
An MS Word document that chronologically documents and details changes in the way field data collection or data processing. This should be in a table within each standard operating procedure.

Effort:
Project personnel should be instructed to immediately enter all changes in data collection methods as they occur. Effort is minimal, one hour per week in the beginning stages of a project. As a project matures, effort should approach zero as few changes will occur.

Data Documentation

Deliverables:
- Full FGDC compliant metadata for all data sets
- Database Design and Description written and provided in MS Word
- Project tracking log in MS Word or text file.

Description:
FGDC compliant metadata should be provided for all data. Database design, attribute descriptions, table relationships, and data verification should be provided in a Database Design and Description document.

Data in each database should be reviewed and corrected using an approved verification method, such that data entry accuracy is 95% or greater. A description of the verification method and results will be included in the Database Design and Description document accompanying this database.

An explanation of any data processing procedures should be included in the Database Design and Description document. This includes QA/QC procedures, step-by-step processing steps, and analytical procedures. Use of illustrations, such as screen shots, is encouraged.

A project log is encouraged. The project log gives a day to day description of what was completed and the decisions made, and can be informally written in an MS Word or text file.

Multi-year projects should provide a detailed description of how and why data processing methods changed.

Guidelines:
- Federal Geographic Data Committee. 2000. Content Standard for Digital Geospatial Metadata Workbook.
- (I&M Specifications for Data Documentation – not written yet)

Information Discovery

(Literature Review/Bibliography/Data Clearinghouse Search)

A review of existing literature and data should be done with all projects. A summary of the information discovered through this process should be summarized. This may be included in the Study Plan or Report or written as a separate, informal report. Any significant findings, such as downloaded reports or protocols, should be stored in the project's \Information_Gathering subdirectory.

Reports

Deliverables:

- Reports written and provided in MS Word.
- Hard copy reports printed as specified.

Description:

Reports should summarize the projects data and review the data analysis in light of related scientific data and theory. Reports should also comment on the potential management implications of the project findings. Key decisions should be documented. Reports submitted to the I&M Program will be written following the guidelines provided:

Guidelines:

- Specifications for annual progress reports and final reports submitted to the Alaska Inventory and Monitoring Program, Alaska Region.

Copies:

An electronic copy of the report in MS Word and any supplement information in MS Office products is required. If desired, these may also be provided in Adobe PDF format, consolidated into one document or a series of documents with logical breaks. The use of bookmarks are encouraged.

For Annual Reports, 2 copies should be provided to the NPS primary contact. For Final Reports, a minimum of 12 copies should be provided to the NPS primary contact. These copies will be distributed to the appropriate libraries.

Other

Deliverables:

- As described in the Study Plan or Contract

Description:

Other deliverables may be required. Such items may be voucher specimens, satellite imagery, DNA samples, acquired equipment, etc. How these materials should be handled should be further specified by the NPS Project Leader.

Data Structure

File naming conventions:

File naming conventions help in data management by clearly separating at a glance drafts from most current versions. These guidelines apply to all files:

- No spaces or special characters within the name
- Use date for version control, (YYYYMMDD, YYMMDD, or YYMM)
- Use underscore as delimiters
- Keep to about 50 characters or less.

For Example: HamonT_2000_ANIA_SockeyeInventory_200104.pdf _

Guidelines:

- Cheat Sheet: File Naming Standards

Appendix 4-1:
NPS, Program, and Network Clearinghouses

NPS, Program, and Network Clearinghouses

As of September 2006

NPS Focus

Scope: NPS
Purpose: To provide a one-stop searching solution to find information by and about the National Park Service. NPS Focus is supported by the Digitial Library which provides a repository for digital images, such as photos, reports, drawings, maps and other imagery.

NPS GIS Metadata and Data Store application (NPS GIS Data Store)

Scope: NPS
Purpose: To provide a working repository of Natural Resource and service-wide GIS metadata and data for NPS users. Park and network metadata records will be stored in NPS GIS Data Store. The NPS GIS Data Store is the official NSDI clearinghouse node for NPS, and will feed into the Geospatial One Stop (GOS).

Alaska Geospatial Data Committee (AGDC)

Scope: Alaska
Purpose: AGDC serves as a gateway, node, and metadata and data repository for all Alaska geospatial information. Located in Anchorage, Alaska, the internet services provided are more expedient than if located in the continental United States and provides a closer partnership with other agencies located in Alaska. Through the support of the AKRO, SWAN will use both the NPS clearinghouse infrastructure and the AGDC (www.agdc.usgs.gov).

NatureBIB

Scope: Natural Resource Challenge, Bibliography Inventory
Purpose: Park and network bibliographic records will be stored in the NatureBIB cataloging database. A subset of the records suitable for the public will be forwarded to NPS Focus. Though NatureBIB does not follow the exact protocols to be considered a node, it serves this function.

I&M Program Protocols Clearinghouse

Scope: I&M Program
Purpose: Provide a central repository for protocol summaries, full protocols, and supporting databases.

NPSpecies

Scope: Natural Resource Challenge, Biological Inventory
Purpose: Provides a central repository for biological diversity information. Includes a Biodiversity Data Store.

SWAN Information Discovery Website

Scope: Southwest Alaska Network

Purpose: Links to the above clearinghouses and other clearinghouses used by SWAN can be found on the network's website, under "Information Discovery." Other links may include:

- Air Quality websites
- Water Quality websites
- Climate station websites
- Monitoring partner websites

Appendix 4-2:
Cheat Sheet: File Naming Standards

Cheat Sheet: File Naming Standards

Version date: March 13, 2006
Last modified:

Author(s) of Sheet: Dorothy Mortenson, National Park Service, Inventory and Monitoring Program, Southwest Alaska Network

Website: http://www1.nature.nps.gov/im/units/swan/index.cfm?theme=info_guidelines

Purpose: Provide a quick reference in file naming standards.

A. Within any file created, be sure the following is documented:

- Purpose
- Who wrote the document
- Date
- Last modified
- Control version by using date.

Example: The header for this "Cheat Sheet" provides an example.

B. Folder and file naming standards

- Keep names short if possible but make them meaningful and intuitive
- Avoid spaces, unusual characters (like % or & or /), or reserved words (like DATE) in both folder and file names. This is REQUIRED, WITH NO EXCEPTIONS.

1) Report File Names:

***Required format**: Report files should be named in the following manner:*

AuthorLastNameFirstInitial_YEAR_ParkCode_BriefTitle_version.doc

Where:
AuthorLastName = The first author's last name or the agency office (i.e., AKRO)
FirstInitial = First initial of the first author.
YEAR = Four digit year of the publication date.
ParkCode = Four letter park code
BriefTitle = Provide a descriptive, but brief title. Concatenate with capitol letters and no spaces.
Version = Date formated as YYMMDD, where DD is optional.

For example: MillerJ_2003_ALAG_FreshFishReprt_0312.doc

2) Data:

Tabular data, such as MS Access databases, MS Excel spreadsheets, or others, should be named in the following manner.

ParkCode_Year_ShortDescrip_Stage_versiondate.mdb or .xls or .txt

ParkCode = Four letter park code
YEAR = Four digit year of the publication date.
ShortDescrip = Provide a descriptive, but brief title. Concatenate with capitol letters and no spaces.
Stage = Stage of the database.
For example:

- InDesign – The database is in design and no real data is included
- RAW – Contains only the raw data; no QA/QC procedures are done
- QAQC – Data has been in some state of QA/QC
- Finished – Data has completed all stages, but there still may be some versioning, which is controlled by date. Select the latest data for the most current database.

3) Image File Names:

Image files should be named in a the following manner, unless otherwise specified for a given project:
ParkCode_Year_ShortDescrip_SequenceNumber.xxx

For examples:
ANIA_2003_SurpriseLake_001.jpg
ANIA_2003_1000301.jpg (where the last few is digitally assigned.)

C. Making Exceptions:

There is no exception for the Report File Naming. On occasion, however, a different file naming strategy may be needed for data files or images. For example, it may be important to keep track of the author of data. In this case, you may find it more intuitive to use the Report Naming Standard. All names should indicate at a minimum which park, date, and subject. It should be easy to tell what is the most current dataset.

D. For more information:

This Cheat Sheet is a short summary of file naming standards. More detailed information can be found at the website:
http://www1.nature.nps.gov/im/units/swan/index.cfm?theme=info_guidelines

Appendix 5-1:
Microsoft Access Database Application Specifications

National Park Service - Southwest Alaska Network
Inventory & Monitoring Program

Microsoft Access Database Application Specifications For Southwest Alaska Network Inventory and Monitoring Program

By:
Jeff Cotterman
and
Dorothy Mortenson

Version: September 2006

File Name: SWAN_2005_DBApplicationSpecifications_060911.doc

Recommended Citation:

Cotterman, J. and D. Mortenson. 2006. Microsoft Access Database Application Specifications. Southwest Alaska Network. Anchorage, AK.

Topic(s):

information management

Theme Keywords:

Microsoft Access, applications, standards

Placename Keywords:

Alaska, Southwest Alaska Network

Acronyms:

I&M	Inventory & Monitoring (Program)
NPS	National Park Service
SWAN	Southwest Alaska Network
WASO	Washington Support Office

Initial Distribution:

Southwest Alaska Network Inventory and Monitoring Program, Specifications Website

Revisions:

Revision	Description of Change	Author	Effective Date

Microsoft Access Database Application Specifications For Southwest Alaska Network Inventory and Monitoring Program

Last revised: September 2006

DRAFT

1. Overview

As the Southwest Alaska Network (SWAN) Inventory & Monitoring Program (I&M) matures, there will be an increased need for database applications to monitor the vital signs of national parks. The majority of these applications will be specific enough in scope to limit their use to the vital sign for which they were developed. While there will be differences in each application, it will ease training requirements and lower development time if a common look and feel to each individual application is maintained.

1.1. Purpose

Provide technical specifications for application development using MS Access.

1.2. Scope and Applicability

These specifications are not required, but are recommended for all database applications created for the SWAN. Cases where there are joint efforts from outside of the Network may be the exception.

1.3. Responsibilities

The application developer is responsible for using these specifications to the best of his/her ability. The SWAN Data Manager or Data Manager Assistant will provide final editing.

1.4. Form Specifications

The applications developed in MS Access database should be consistent in these features:

- General Appearance
- Color Palette and Font
- Standard Header and Title Bar for Forms
- Command Buttons or Menu Buttons
- Switchboard or Main Menu
- Tools for updating linked tables or backups

1.4.1. General Appearance

Figure 1 shows a typical form using the common look and feel. It has a standardized header, form title, menu buttons, color palette, font and font size.

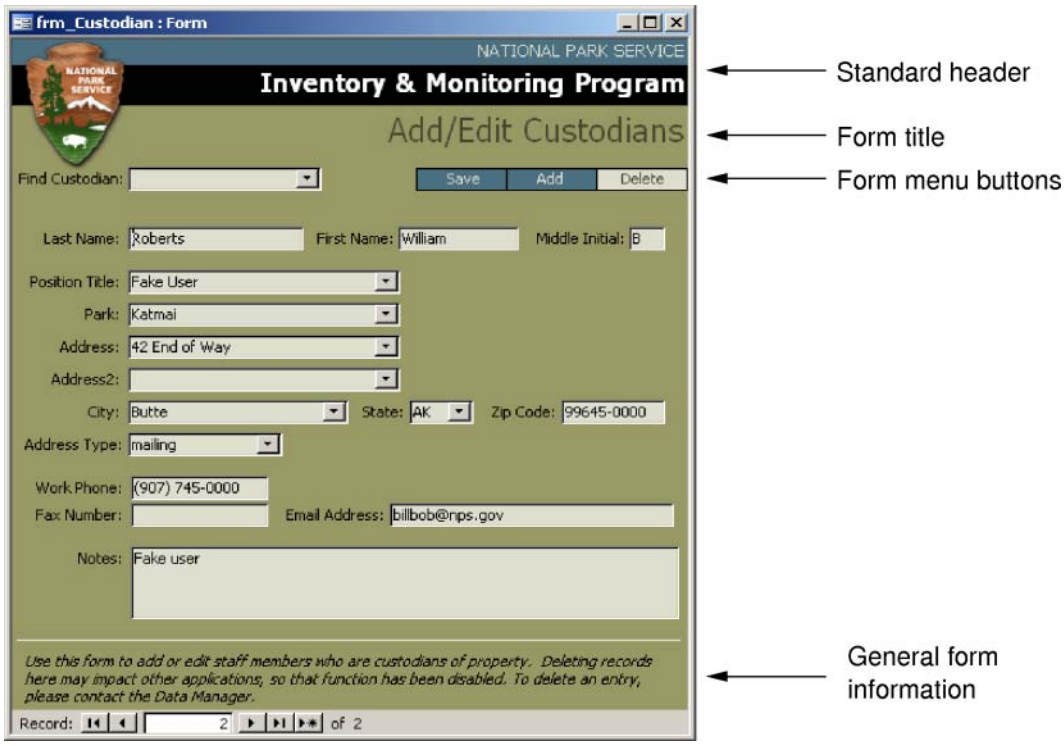


Figure 1. Sample database form

1.4.2. Color Palette and Font

Provided are the standardized font and color palette for developing a desktop database. The font size and color may change for databases developed for field work where color contrast may be necessary for viewing.

Desktop Databases

Color Palette:
A standardized color palette was chosen which allows controls from one form to be copied to another with no color scheme modifications. A defined palette allows for automated tools to modify forms and change the background and foreground colors of each individual control, based on its control type.

Below is a table containing each of the colors in the palette, depicted in decimal for Access, RGB triplets for Word and Photoshop, and Hex values for web pages. Also provided is a list of examples of what each of these colors should be used for on database forms.

Table 1. Color Palette

Decimal	RGB Triplets	Hex	Database Form Applications
13688799	223/223/208	#dfdfd0	Text field, pull downs, and combo box backgrounds.
8563370	170/170/130	#aaaa82	Sub-form background color, disabled command buttons.
6723993	153/153/102	#999966	Main background color, disabled text fields, text field highlights.
3163975	71/71/48	#474730	Form title, help or information text.
8548427	75/112/130	#4b7082	Title bar background, menu buttons, continuous form headers.
128	128/0/0	#810000	Alerts, warnings, and other important labels.

Font:

Just as limiting the range of allowed colors in standardized applications, limiting the amount of font changes between applications is a vital aspect of a common look and feel. Here is a list of general guidelines for use on all forms:

- The standard font for SWAN database applications is Tahoma.
- The common labels should be 10 point, black, and normal typeface.
- Bold face only used on column headers or warnings/alerts.
- Help or information text in italics to delineate it from standard labels.

1.4.3. Standard Header and Title Bar

The standard header and title bar should be applied to all switchboards and first page forms. Subsequent forms should omit the NPS logo, as this may make the database file size unnecessarily large.

The standard header consists of:

- One blue bar with the Agency name
- One black bar with the Program name
- NPS logo (may include logos from other partners)

MS Access does not support transparent images. To work around this limitation, the NPS logo designed for MS Access applications contain a blue and black banner in the background (see Figure 2). When the image is layered on top of the two newly created bars, the logo will appear to have a transparent background.

Figure 2. NPS logo designed for MS Access applications

To create the header, use a layering technique in the following order:

1. Black box
2. Blue box
3. Logo
4. Text for agency, program, and form title

Specifications:

The fonts used in the title bar differ in size and color then the other fonts in the form and are specified here.

Black Box:

- Width: Width of the form or switchboard
- Height: 0.5" high
- Align: Top of page

Blue Box:

- Width: Width of the form or switchboard
- Height: 0.2" high
- Align: Top of page

Logo:

- Width: .77" wide
- Height: 1" high
- Align: Top and left of page

Blue Box Text:

- Content: Name of the agency. Should read "National Park Service"
- Font: Tahoma font, normal weight
- Size: 10 point
- Color: RGB 223/223/208 (decimal = 13688799)
- Align: Right justified

Black Box Text:

- Content: Name of the program. Should read "Inventory and Monitoring Program"
- Font: Tahoma font, bold face
- Size: 14 point
- Color: white(decimal = 16777215)
- Align: Right justified

Form Title Text (below header):

- Content: Specify the name of the application or form
- Font: Tahoma font, normal weight

- Size: 18 point
- Color: RGB 71/71/148 (decimal = 3163975)
- Align: Right justified

1.4.4. Command Buttons or Menu Buttons

Command buttons, or menu buttons, are blue, flat rectangles with a hairline black border. This style of buttons was selected due to the ease of providing visual feedback and overall aesthetics.

Creating a command button is done by creating a blue (decimal = 8548427) filled rectangle along with a centered text label. Next a command button is created the exact size of the rectangle and layered on top of the rectangle, and the transparency property flag is enabled. This allows all the standard command button events to still be contained, while displaying the desired flat blue button.

Providing visual feedback with the command buttons should be consistent across all applications.

- Disabled command buttons should be a shade lighter (decimal = 8563370) then the form background.
- If a command button from a menu is currently active, then that button should be highlighted (decimal = 13688799) to indicate to the user it has been selected. For example, if the user is currently editing habitats on the habitat form, the 'Habitat' command button should reflect active status.
- If the user moves the mouse over a valid command button, the text should highlight to provide feedback to the user.

1.4.5. Switchboard or Main Menu

All applications should open with a Main Menu or Switchboard to help navigate the database. This main menu should use the file name of "frm_main_menu." The Main Menu should follow the specifications in this document and should include buttons for the following functions where applicable:

- *Data Entry* – Opens a new blank record. As a significant part of the application will be adding new records, this function should enable the user to be able to start adding new data with a single button.
- *Data Viewing or Summary* – Opens up the database in a filterable view only mode. While in this view mode, there should be a button to either edit the currently viewed record, or to enable an edit mode, but by default this view should not be editable.
- *Reports* –Lists on a submenu all reports. It may also include exports, charts, or graphs.
- *Verify Data* –Lists procedures to help verify the quality of the data in the database. These are highly dependent on the complexity of the database, and not all applications may require their use.

- *Utilities* –lists general utilities for use with the database. These utilities should include at a minimum a method for the user to backup the database. Other utilities that should be provided if applicable include database linking utilities and form and report generation utilities.
- *Exit* – Exits the application. Certain applications may have a requirement to execute certain functions on exit, such as making a backup of the database, or logging each use of the application. The exit button facilitates the implementation of these functions.

Figure 3. Example Main Menu

The example in figure 3 displays a typical switchboard using the specifications provided.

1.5. Report Format

Reports generated from an Access database should contain the following features:

- A descriptive title
- Indication of agency(ies) and program(s), such as Southwest Alaska Network, Inventory and Monitoring Program.
- Indication of the project
- Citation of the source of data, if the report will be a stand-alone report
- Date the report was printed (often automatic in creating reports)

- Page numbers
- Special sensitivity notations, such as:
  - Draft – Do Not Cite or Quote
  - Sensitive Information – Do not distribute
- Similar presentation as other Inventory and Monitoring Program reporting formats, depending on what the report will be used for.
- Protocol databases should include version in the footer.

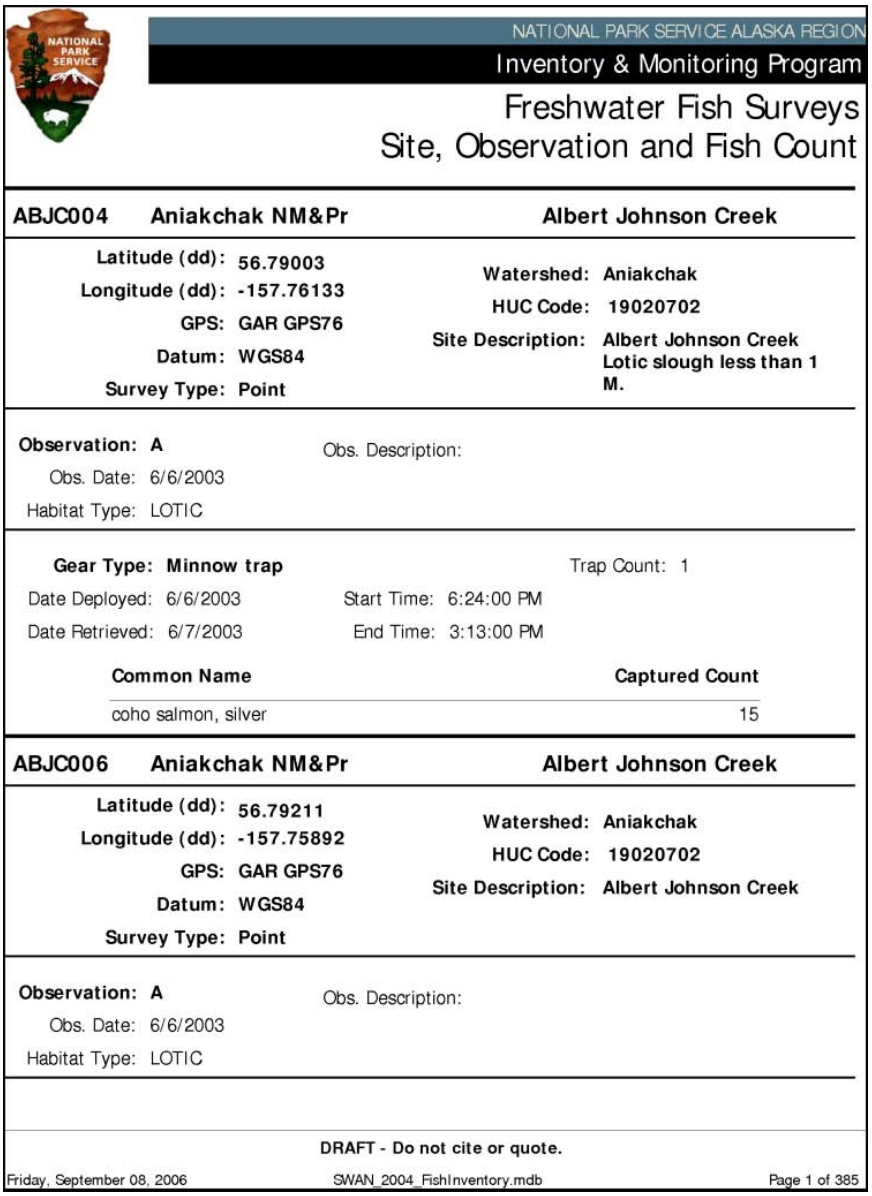
1.5.1. General Appearance

The general layout of the reports in an application is difficult to standardize, as often there are distinct requirements to meet, such as matching field data sheets or replicating a report from a different application. Reports that do not have strict requirements associated with them should follow these guidelines where applicable. Figure 4 and 5 provide examples.

1.5.2. Color Palette and Font

The use of colors in a report should be limited on any report that will be printed. If color is to be used, it should be selected from the color palette listed in table #1. It is important that when using color in a report, to print the report in black and white only, and verify that it is still functional.

The base font in all reports should be Tahoma, between point size 8 and10. This is the same as the forms, and helps provide consistency throughout the application. There may be situations involving a large number of fields where it is not practical to use a 10 point font. The base font can be adjusted for the needs of the report, but should be done with some reservation.



NATIONAL PARK SERVICE ALASKA REGION
Inventory & Monitoring Program

Freshwater Fish Surveys
Site, Observation and Fish Count

ABJC004 Aniakchak NM&Pr Albert Johnson Creek

Latitude (dd): 56.79003
Longitude (dd): -157.76133
GPS: GAR GPS76
Datum: WGS84
Survey Type: Point

Watershed: Aniakchak
HUC Code: 19020702
Site Description: Albert Johnson Creek Lotic slough less than 1 M.

Observation: A
Obs. Date: 6/6/2003
Habitat Type: LOTIC
Obs. Description:

Gear Type: Minnow trap
Trap Count: 1
Date Deployed: 6/6/2003
Start Time: 6:24:00 PM
Date Retrieved: 6/7/2003
End Time: 3:13:00 PM

Common Name	Captured Count
coho salmon, silver	15

ABJC006 Aniakchak NM&Pr Albert Johnson Creek

Latitude (dd): 56.79211
Longitude (dd): -157.75892
GPS: GAR GPS76
Datum: WGS84
Survey Type: Point

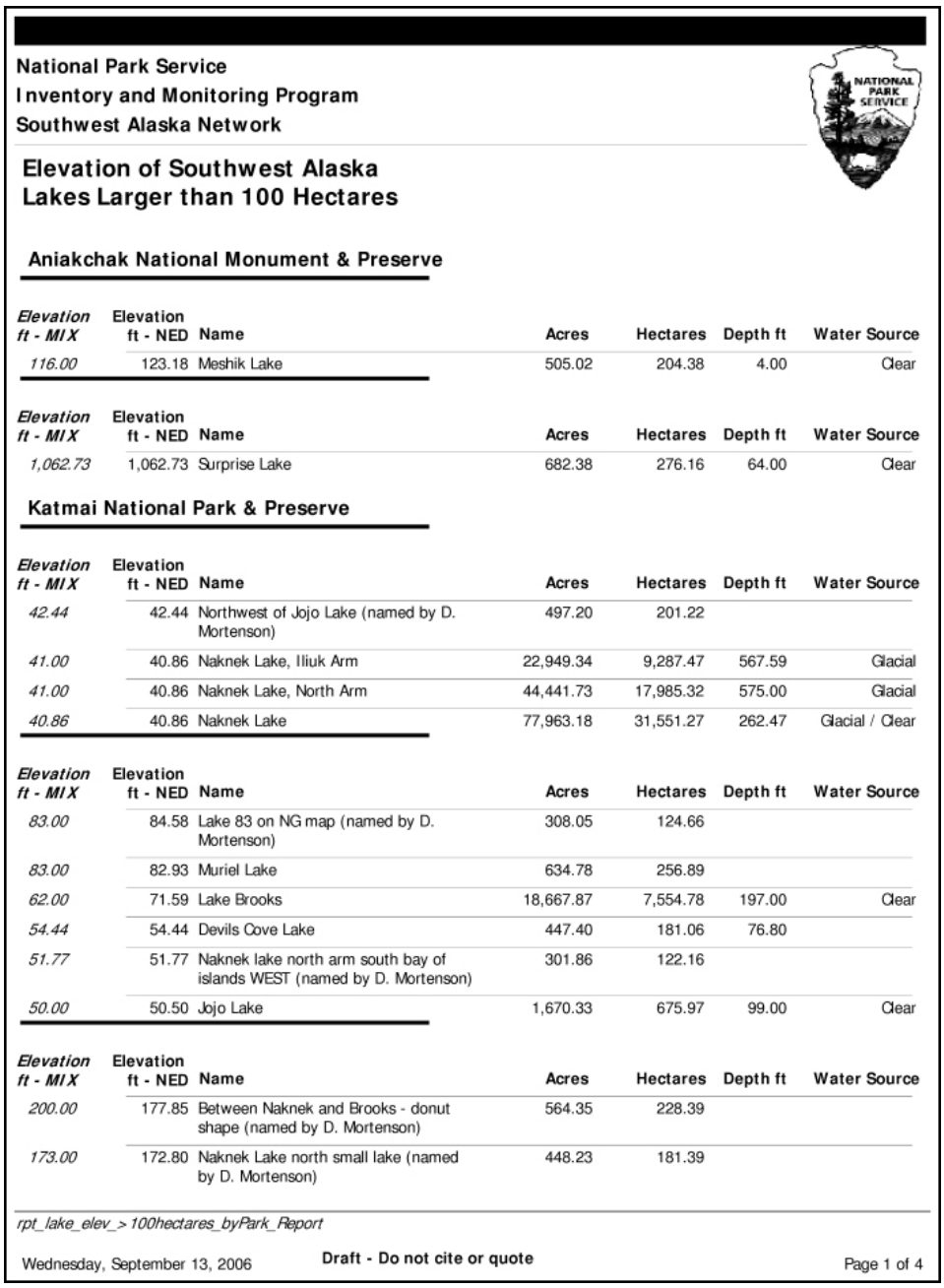
Watershed: Aniakchak
HUC Code: 19020702
Site Description: Albert Johnson Creek

Observation: A
Obs. Date: 6/6/2003
Habitat Type: LOTIC
Obs. Description:

DRAFT - Do not cite or quote.

Friday, September 08, 2006 SWAN_2004_FishInventory.mdb Page 1 of 385

Figure 4: Sample report using a color header



National Park Service
Inventory and Monitoring Program
Southwest Alaska Network

Elevation of Southwest Alaska Lakes Larger than 100 Hectares

Aniakchak National Monument & Preserve

Elevation ft - MIX	Elevation ft - NED	Name	Acres	Hectares	Depth ft	Water Source
116.00	123.18	Meshik Lake	505.02	204.38	4.00	Clear
1,062.73	1,062.73	Surprise Lake	682.38	276.16	64.00	Clear

Katmai National Park & Preserve

Elevation ft - MIX	Elevation ft - NED	Name	Acres	Hectares	Depth ft	Water Source
42.44	42.44	Northwest of Jojo Lake (named by D. Mortenson)	497.20	201.22		
41.00	40.86	Naknek Lake, Iliuk Arm	22,949.34	9,287.47	567.59	Glacial
41.00	40.86	Naknek Lake, North Arm	44,441.73	17,985.32	575.00	Glacial
40.86	40.86	Naknek Lake	77,963.18	31,551.27	262.47	Glacial / Clear
83.00	84.58	Lake 83 on NG map (named by D. Mortenson)	308.05	124.66		
83.00	82.93	Muriel Lake	634.78	256.89		
62.00	71.59	Lake Brooks	18,667.87	7,554.78	197.00	Clear
54.44	54.44	Devils Cove Lake	447.40	181.06	76.80	
51.77	51.77	Naknek lake north arm south bay of islands WEST (named by D. Mortenson)	301.86	122.16		
50.00	50.50	Jojo Lake	1,670.33	675.97	99.00	Clear
200.00	177.85	Between Naknek and Brooks - donut shape (named by D. Mortenson)	564.35	228.39		
173.00	172.80	Naknek Lake north small lake (named by D. Mortenson)	448.23	181.39		

rpt_lake_elev_>100hectares_byPark_Report

Wednesday, September 13, 2006 **Draft - Do not cite or quote** Page 1 of 4

Figure 5: Sample report using a black and white header

1.5.3. Standard Header and Title Bar, Option 1

As with the forms, the fonts used in the header differ from the main content font. Option 1 is illustrated in figure 4.

- Agency line in blue bar – Should read “National Park Service” in 10 point Tahoma font, normal weight, all capital letters, in white.
- Line office in black bar – Should read “Inventory and Monitoring Program” in 14 point Tahoma font, bold face, in white.

- Report title below header bars – Should specify the name of the application or form, in 18 point Tahoma font, normal weight, in black.

The standard header and title bar should only be displayed once in a report, and not on every page of the report. Also the use of the color bars and logo can be omitted depending on the use of the report.

1.5.4. Standard Header and Title Bar, Option 2

Figure 5 provides an example using black and white only and illustrates another format that can be used. The specifications for this format are:

- Top black bar – Width of the page; .2" height
- Text for agency, program, and network – Tahoma font; 10 point
- Text for title – Tahoma font; 12 point

1.6. Utilities Specifications

Standardized utilities will help provide consistent tools from one database to another. These are currently under development but will include:

- Standard back-end database linking tool
- Back-end database archival utility
- Generic error handling and reporting
- Common search functions
- Common sorting functions

A form, following the specifications for main menus and switchboards, will contain all the user level utilities, such as backup, linking tables, revision history, etc. This will enable the user to be familiar with the layout of the utilities, and will ease the reuse of the code by developers.

Visual Basic code written for these will be stored in a central location for use throughout the region. Likewise these utilities and others will be shared on the Washington Support Office (WASO) Data Management website.

1.7. Planned Revisions

Standards on reporting of natural resources are currently being developed. As these become more mainstream, this SOP should be revised to better reflect the needs for these reports.

Appendix 7-1

Standard Operating Procedure: Data Audit Reporting

Standard Operating Procedure

Data Audit Reporting
For Southwest Alaska Network
Inventory and Monitoring Program

By:
Dorothy Mortenson

Version: September 2006
DRAFT

Revisions:

Revision	Description of Change	Author	Effective Date

1. Overview

The Inventory & Monitoring Program (I&M) for Southwest Alaska Network (SWAN) is responsible for ensuring relevant natural resource data collected will be entered, validated, analyzed, reported, documented, cataloged, archived, and made available to others for management decisions-making, research and education. The Data Management Plan (DMP) provides an extensive overview for all of these steps. This standard operating procedure (SOP) describes the Data Audit Reporting procedure to ensure all projects are meeting these requirements.

1.1. Purpose

- Data collection and reporting requirements are being met
- Data collection and reporting procedures are being followed
- Verification and validation procedures are being followed
- Data file structures and maintenance are clear, accurate and according to plan
- Revision control of program documents and field sheets are adequate
- Calibration and maintenance procedures are being followed
- Seasonal and temporary staff have been trained in data management practice
- Metadata collection and construction for the program proceeds in a timely manner
- Data are being archived and catalogued appropriately for long term storage

1.2. Scope and Applicability

The Data Audit Reporting is for SWAN projects, and is required.

1.3. Definitions

Project described in this SOP refers to inventory projects, pilot projects, and long-term monitoring.

1.4. Responsibilities

The SWAN Data Manager or Data Manager Assistant will generate a data audit report twice a year, typically in February/March when deliverables are due and again in September before the Annual Administrative Reporting and Work Plan is due. Project leaders may request a report at any time.

Copies of all data audit reports will be presented to the Network Coordinator and to the Project Leader.

Project leaders should address concerns in writing so these may be appropriately documented.

1.5. Standard Operating Procedure

The SWAN Data Manager or Data Manager Assistant will generate a Data Audit Report using the Project Tracking Database or will generate a report in a Word document. Each project will have its own set of data management SOPs and will address specific needs. This SOP should be used as a guide.

1.5.1. Data Audit Reporting Procedures

1) Review the working directory for the following:
   - Directory documentation is up to date (Project Organizer)
   - Directory is organized logically.
   - File names follow SWAN standards or protocol standards
   - Administrative records are present; final versions (with TA numbers, etc.) are present.
2) Review of Project Tracking Database
   - Are all the fields up to date, such as contacts, due dates, list of deliverables, fiscal year summaries, IAR numbers, pathnames to files, etc.
   - Are there deliverables past due?
3) Review of working files
   - Does it appear the working files will result in the desired final products? Are these working files lining up with SWAN specifications?

- Review quality control procedures/results. Check for logical errors and consistency. Preliminary results should be reviewed and discussed with Project Leader.
- Are progress and annual reports present and complete?
- Are other interim products present and complete, as specified in the administrative agreements?
- Has documentation been started for these interim products?

4) Review of deliverables
   - Are all the final deliverables present electronically and hardcopy?
   - Do the deliverables meet specifications?
   - Are documentation requirements met?
   - Did the deliverables meet deadlines?
5) Review archives and distribution
   - Are the products ready for long-term electronic archives?
   - Are the products ready for long-term hardcopy archives?
   - Can this project be packaged and publicly distributed as a package?
   - Are individual products (such as reports) ready for public distribution (via public libraries, website, etc.)?
6) Complete the Data Audit Report
   - Complete the data audit component of the project tracking database
   - Print report and submit to the Project Leader and Network Coordinator.
   - Discuss with Project Leader any recommendations.

Inventory and Monitoring Program
SWAN
Data Audit Report

Thursday, September 07, 2006

Project Name: Small mammals inventory

Status: Complete

AARWP Task: FY2005 Inventory 3.03

Network: SWAN

Project Number: SWAN-00006

NPS Project Leader: Bill Thompson, Biometrician

NPS Project Leader Address: 240 West 5th Avenue Anchorage, AK 99501

Principal Investigator: Joe Cook, University of New Mexico, Department of Biology

PI Address: 167A Castetter Hall Albuquerque, NM 87131-1091

Project Start / Target End Dates: 01-30-2002 | 12-31-2005 **Completion Date:** 12-31-2005

Abstract:

Conduct a small mammal inventory of the Alaska's National Parks and Preserves. This project is designed to improve knowledge of the occurrence, distribution, and habitat associations of small mammal fauna throughout the Southwest Area (SWAN) Inventory and Monitoring Network.

Agreement Numbers:	ANCS Accession Numbers:	Associated Parks:	Permits:
1443CA991000	KATM-00330	KATM	LACL-2003-SCI-0003
H8R07010001	LACL-00139	KEFJ	KEFJ-2003-SCI-0004
	KEFJ-00138	LACL	KATM-2004-SCI-0009

Deliverables:

Report	Study Plan and Cooperative Agreement	12/1/2002	Completed
File Name:	*CookJ_2004_SmMammalCoopAgrSWANFinal_040205.doc*		
Report	FY2003 KEFJ Field Season Report	9/15/2003	Completed
File Name:	*CookJ_2003_KEFJ_SmallMammalInvPreliminaryRept_030814.pdf*		
Report	FY2003 LACL Field Season Report	9/15/2003	Completed
File Name:	*CookJ_2003_LACL_SmallMammalInvPreliminaryRept_030814.pdf*		
Report	FY2003 Annual Report for LACL	2/15/2004	Completed
File Name:	*CookJ_2004_LACL_Mammals2003AnnRep_567479.pdf*		
Report	FY2003 Annual Report for KEFJ	2/15/2004	Completed
File Name:	*CookJ_2004_KEFJ_Mammals2003AnnRep_567480.pdf*		
Report	FY2004 KATM Field Season Report	9/15/2004	Completed
File Name:	*CookJ_2004_KATM_SmMammalInvPrelimRept_040830.pdf*		
Report	IARs, annually	12/1/2004	Completed
File Name:	*KEFJ, LACL, KATM completed*		
Database	NPSpecies Data Entry	12/31/2004	Completed
File Name:	*SWAN_data_051128.MDB*		
Other	LACL Voucher specimens - properly stored and cataloged	12/31/2004	Completed
File Name:	*stored at UAM*		

Inventory and Monitoring Program
SWAN
Data Audit Report

Thursday, September 07, 2006

Other	KEFJ Voucher specimens - properly stored and cataloged	12/31/2004	Completed
File Name:	*stored at UAM*		
Other	KATM Voucher specimens - properly stored and cataloged	12/31/2004	Completed
File Name:	*stored at UAM*		
Report	KATM FY2004 Annual Report	2/15/2005	Completed
File Name:	*CookJ_2004_KATM_SmMammals2004AnnRept_050421.pdf*		
Fieldnotes	Field Data Sheets	4/1/2005	Completed
File Name:			
GIS Data	GIS data of transects and locations of species	4/1/2005	Incomplete
File Name:			
Other	Metadata for GIS data and Tabular data. Documentation of project files and other items.	4/1/2005	Incomplete
File Name:			
Photographs	Opportunistic photographs of sites and events	4/1/2005	Completed
File Name:	*photos listed in directory*		
Report	SWAN Small Mammal Inventory Final Report	4/1/2005	Completed
File Name:	*CookJA_2005_SWAN_MammalsInvFinalRprt_609488a.pdf*		
Spreadsheet	Small Mammals Inventory Spreadsheet	4/1/2005	Completed
File Name:	*Arctos_SWAN_SmMammalData_050816.xls*		
Database	NPSpecies certification	7/1/2005	Completed
File Name:	*SWAN_MammalsCertified.zip*		
Presentation	Presentation to SWAN technical committee (and others)	12/31/2005	Completed
File Name:	*CookJ_2005_SWAN_SmallMammalsInventory_050228.ppt*		
Report	Peer Reviewed publications	12/31/2007	Planned
File Name:			

Project Log:

Date/Person	Comments:
9/8/2004 dcm	Link Olson from UAF museum has been contracted to do the NPSpecies certification. - Requisition no: 9855-04-0033 3/23/2004. Contract for: Final processing curation and the correction, verification, and certification of NPSpecies mammals database for SWAN.
9/8/2004 dcm	Tabular data must be in a format that can be imported into NPSpecies. Once imported, PI is responsible for general review to ensure import was successful.
9/8/2004 dcm	Final draft of all deliverables (report, data, documentation, etc.) should be completed by April 1, 2005 and should be delivered as a complete package on CD(s).
8/22/2005 dcm	Sent UAM spreadsheet for all parks (LACL, KEFJ, KATM) to WASO on 8/16/05 for upload into NPSpecies.

Inventory and Monitoring Program
SWAN
Data Audit Report

Thursday, September 07, 2006

9/6/2006 No specific GIS datasets were created for this project.

dcm

Data Audit Report:

Reviewer Name: Dorothy Mortenson

Audit Date: 9/6/2006

Auditors Approval:	☑	This project is satisfactorily complete within the scope of work requested.
Project Directory Approved	☑	
File Name Approved	☑	
Administrative Records Approved	☑	
Project Tracking DB Complete	☑	
Verification and Validation	☑	
Correctly Formatted	☑	
Documentation Complete	☑	
Curation Complete	☑	
Electronic Library Complete	☑	
Public Distribution Complete	☑	

Appendix 8-1:
Project Organizer

Template

Name of Park Unit

Southwest Alaska Network

XXXXX Project Organizer

[Study Plan] [Reports] [Database]
[Field Protocol] [Data Processing Protocol]
[Record of Protocol Changes]
[Project Log][Safety Manual]

START HERE

Contacts:
First & last name, position
Organization
Address
City, State Zip
Phone
E-mail

Objective:
ADD A SHORT PROJECT SUMMARY, SCHEDULES, PHOTOS AND LINKS TO OTHER PROJECT DOCUMENTS THAT ARE NOT LINKED ABOVE.

A. How to set up your project organizer

The purpose of the project organizer is to:

- Help organize project documents and data
- Help managers to access data and understand the project

Ideally a project novice should be able to open this document and link to all the information needed to safely and efficiently collect, process, analyze and report data for this project.

The project organizer can be maintained in Word or as an html file. The file should be maintained in the root of the project folder and should be named index.html or index.doc.

There are eight main links at the top of the page. These main links can open a single document or a document that links to other documents. For example, a small short project may link directly to a study plan document. A long-term, large project may have amendments and the study plan link on the Project Organizer may open a Study Plan page with links to the study plan and amendments and perhaps correspondence about the plan.

The main links:

Study Plan – the original document(s) that proposed the work, and all amendments.
Field Protocol – the document or a page that links to multiple documents that describe in explicit, vivid detail how the data is collected.
Data Processing Protocol – a page that links to documents that describe in vivid detail how to store, process and archive the data. There should be a linked document in here describing each project sub-folder and its contents.
Record of Protocol Changes – a single document that records all changes in the way data is collected by date. All project personnel should be familiar with this document and should enter protocol changes and issues **as soon as they occur or become known**.
Database – where applicable link directly to the Access database holding the project data. If complex data is stored in text files or other formats, link to a page detailing the storage location with links to data view projects in ArcView, ArcGIS etc.
Reports – reports pertaining to the project data
Project Log – this should be a single document that is a day-to-day or week-to-week log book recording significant accomplished work, ideas, meetings, trainings, field trips, procedural conflicts and resolutions etc. All members of the team should input. Newest entries should be at the top of the document.
Safety Manual – project specific safety information, links to Park safety pages.

Other links to consider may include:

- Datasheets
- Current years schedule and assignments
- Links to previous years schedules and assignments
- Personnel biographies

- Slide shows or image collections about the project

B. Folder and file naming conventions

- Keep names short if possible but make them meaningful
- Avoid spaces, unusual characters (like % or &), or reserved words (like DATE) in both folder and file names
- *Reports:* AuthorlastnameInit_Year_ParkCode_ShortTitle_version.doc
  Version is indicated by year,month,day YYMMDD and indicates the day the report was last modified.
  For example: DeschuN_2003_LACL_CrecentRiverReport_0306.doc
  Once this report is entered into NatureBIB the version number is changed to the BIBKEY number.
- *Images:* ParkCode_Year_ShortDescrip_SequenceNumber.xxx
  For examples:
  ANIA_2003_SurpriseLake_001.jpg
  ANIA_2003_1000301.jpg (where the last few is digitally assigned.
- *Data:* Use the "Recommended Naming Standards", located at:
  http://www.nature.nps.gov/im/units/swan/Documents/Data_Management/im_naming_guide.pdf

C. Folder directory structure

Following is a generic directory structure template to be used as a starting place. Other directories may be created or reorganized as the project requires, such as if a project will be using satellite imagery or videos, or will be downloading large quantities of data from a data logger.

\Administrative – Store information about the setting up of the project here. Proposals, study plans, work plans, contract agreements, relevant e-mails, etc.

\Agreements_Contracts
\Correspondances
\Meetings
\Permits
\Study_WorkPlans
Deliverables.doc – Information Deliverables for Scientific Projects for this specific project. List provides specific deliverables and due dates. This may be a printout from the Project Tracking Database.

\Concept_Models – If conceptual models are used for this project, place them here. Otherwise delete the directory.

\Data

\Analysis – data analysis, statistical analysis. At analysis time: create a folder based on the date. Document permanent analysis techniques.

\DataForms – Contains the template for the field forms used.

\GPS – Contains information downloaded from GPS

\Spatial – Contains GIS information

\avprojects (or ArcMap files)

\geoimages

\legends

\meta

\outputs

\shapes

\Tabular – Contains the Access database and corresponding documentation.

\Field_Notes – Store field notes made here.

\Equipment – Any specific information pertaining to equipment.

\Information_Gathered – Store additional information, such as examples from other studies, downloaded reports from other studies, etc. here.

\Photos – Store photos taken for this project here. Store ThumbsPlus database here. Provide documentation of the naming standard used for the photographs.

\Finished – Finished photos here.

\Originals – read-only set of originals, as is

\Working– Workspace if needed.

\Presentations – Store PowerPoint presentations about this project here.

\Proposals –

\Protocols – Protocols are detailed descriptions of how to collect, process and analyze data for this project. Include protocols for the field, data processing, equipment, safety, etc., as applicable.

\Reports – Create subdirectories as appropriate. May be by draft vs. final; by phases; by type, such as trip reports, annual reports, etc.

\Annual_Reports –

\Field_Reports –

\Final_Report

\IARs – Investigators annual reports. Download a copy for archiving with the project.

Appendix 8-2:

Template for database documentation

Monitoring Protocol Database Data Dictionary

Template for Database Documentation (version: 09/08/2006)

<Title>
Monitoring Protocol Database
Data Dictionary

<Author>
Last revised: <date or version number>

National Park Service
Southwest Alaska Network
Inventory & Monitoring Program
Anchorage, Alaska

Abstract: Nonsense abstract here. Nonsense abstract here. Nonsense abstract here. Nonsense abstract here. Nonsense abstract here. Nonsense abstract here. Nonsense abstract here. Nonsense abstract here. Nonsense abstract here. Nonsense abstract here. Nonsense abstract here. Nonsense abstract here. Nonsense abstract here.

Template instructions:
Database documentation can be a lengthy process and may require frequent updates. It is recommended automated procedures be used wherever possible. The goal of this template is to provide guidance on the content of information to include. Exact formatting at this time is under review and not required at this time, but the content is required.

Recommended Citation:

Name, Author T. Year. Title Monitoring Protocol Database Data Dictionary. Southwest Alaska Network. National Park Service. Anchorage, AK. 999 pg.

Acronyms and Definitions:

ALAG	Alagnak Wild River
ANIA	Aniakchak National Monument & Preserve
I&M	Inventory & Monitoring (Program)
KATM	Katmai National Park & Preserve
KEFJ	Kenai Fjords National Park
LACL	Lake Clark National Park & Preserve
NPS	National Park Service
SWAN	Southwest Alaska Network

Revisions:

Revision	Description of Change	Author	Effective Date

Table of Contents

<Title>
Monitoring Protocol Database
Data Dictionary

Last revised: <date or version number>

1. Overview

1.1. Purpose

Provide a clear description of the purpose of this database.

1.2. Scope and Applicability

State the applicability and limits to which this database shall be used. Answer questions of applicability, "This database applies **to what, where, when, whom, how…**" Outlines the area, function, group, or personnel to which the database applies.

1.3. Responsibilities

Specify responsibilities and authority.

1.4. Work Flow Diagram and Process Description

For complex and cross functional processes, a work flow diagram and process description give affected personnel and all other interested readers a good overview of the processes.

1.5. Procedures

Present in actual sequence each step or activity. This may be a general guide to the data forms or may reference a guidance document. Identify what input is necessary for each step or activity and from where and/or whom it will come. Identify data verification and validation steps needed to be taken (unless otherwise described below). Identify what output is produced and to where and/or whom it will go.

1.6. Quality Summary

Provide a description of the quality of the data. Answer questions pertaining to verification and validation.

1.7. Conceptual Data Model

Optional. If one exists, include it here. This differs from the work flow diagram in that this pertains to the data, as opposed to the methods procedures.

2. Data Dictionary

2.1. Physical Data Model Overview

2.1.1. Model Information

Name:	{Name of the database}
DBMS:	{name of database used e.g., SQL Server, MS Access}

If more than one database is being used that relate to each other, list all of them here and describe their relationship.

2.1.2. Model Level Diagram

- Provide the overall physical data model or an entity diagram.
- Diagrams should illustrate the relationship, including cardinality, between tables.
- Color coding of tables (orange) versus reference tables (yellow) is helpful. (Packages colored green)
- *Tip:* In MS Access, this can be accomplished by viewing the Relationship. Color coding of tables is not permissible.

Diagram Header Information:

Title:	
Subtitle:	Optional.
Author:	
Date:	
Version:	
Status or notes:	Optional.{draft | in review| complete}

[Diagram here] (larger, of course)

2.1.3. Package List

Provide a list describing the groupings of tables. The following table is an example.

Name	*Description*
site_description	This contains the information about the site locations.
observations	Contains temporal information about a particular observation. It connects directly to site_description.
methods	Contains methodology information to collect each sample
habitat	Describes at a macro level the type of habitat
project	Overall information regarding the project
collections	Detailed information about what was collected.

2.2. Physical Data Model Detailed

Provide complete package, table and attribute documentation. For each package, add a new section. Keep the Package Level Diagram and Table Lists together for each package.

2.2.1. Package Level Diagram

Entity diagram of a set of tables. This specific diagram allows the reader to see in detail the tables and their relationships (as opposed to the overall Physical Data Model diagram).

Package Title:	
Author:	
Date:	
Version:	
Status or notes:	

[Diagram here] (larger, of course)

2.2.2. Table List

Provide a list describing the tables within this package. The following table is an example.

Name	*Modification Date*	*Description*
tbl_site	1/23/03	Site specific data.
tlu_usgs_quad	12/10/02	Lookup table for USGS quadrangles. Source: US Geological Survey
tlu_gps_type	06/13/02	Lookup table for accepted GPS types Source: Alaska Regional Office, GIS Team
tlu_datum	06/13/02	Lookup table for accepted GPS types Source: Alaska Regional Office, GIS Team

2.2.3. Table Description and Attribute Definition

- Provide complete table and attribute documentation.
- *Tip:* MS Access Documenter may provide similar information in a slightly different format, which is acceptable.
- *Tip:* If using a database modeling tool that displays data types and indices in the diagram, it is not necessary to repeat the information here.

[table name - primary]	{alternate name}			
	[table definition]			
	{table citation}			
Field name	Data Type	Index	Default value and domain constraints	Definition

[ltable name - lookup]	{alternate name}			
	[table definition]			
	{table citation}			
Field name	Data Type	Index	Default value and domain constraints	Definition

Field name	Field name	Field name	Field name
<value>	<value>	<value>	<value>
<value>	<value>	<value>	<value>
<value>	<value>	<value>	<value>

A. Table name – Name of the table along with an alternate name, if needed
B. Table definition – Brief description of the table's contents
C. Table citation – If the table is a reference table developed from a reference or protocol, cite this reference or protocol. If using MS Access, enter this information with the table definition.
D. Field name – avoid spaces and special characters; use consistent case; include the units in the name where appropriate
E. Data type – use the data types for MS SQL Server 2000, as listed in Appendix 1

i. For data types of **varchar** and **char**, indicate the field length in parantheses. For example, varchar (30) would indicate a 30-character text string. See Appendix 1.

ii. For **decimal** data, indicate the precision and scale of the field as follows: decimal (precision, scale). The *scale* is the number of decimal digits to the right of the decimal point, and the *precision* is the total number of significant digits on both sides of the decimal point. For example, the number 23.5141 has a precision of 6 and a scale of 4. The syntax would be Field_name (6, 4).

F. Index – indicate the indexing for the field as one of the following:

i. *primary* – this field (or combination of fields) can be used to uniquely identify all of the records in the table, and serves as the basis of relationships with other tables

ii. *foreign* – this field is indexed and is a primary key in another table

iii. *unique* – no duplicate values are allowed in this field (or combination of fields); if an index is composed of several fields, indicate the participating fields with an asterisk (e.g., a table with a unique index for Plot_ID and Sample_date would have "unique *" under index for both fields)

iv. *yes* – indexed for faster searching and sorting

v. *no* – not indexed (long character data, numeric data fields, etc.)

B. Default value and domain constraints – indicate the default value and any constraints on valid data in this table. Fields for which data entry is required (i.e., no missing values) should be indicated by "(required)". Some examples follow:

i. a default value with no other constraints: (default: 15)

ii. an open pick list of weather conditions: rain, wind, fog, clear, [other values]

iii. a constrained pick list with required entry and a default value: (required) – index monitoring, incidental (default)

iv. a numeric field with values between 1 and 100: >0 and <=100

v. a field that depends on the values entered in another field: If [Is_marked] = TRUE Then [Mark_type] Is Not Null

C. Definition – enter a brief description of the field; this description will appear in the status bar of the database when users are entering and viewing data, and will serve as the basis for documenting data.

3. Data Summary and Reporting

3.1. Data Views

Data Views are queries designed to combine tables to appear as one "view". Describe in this section the most common views used for data analysis, summary and reporting.

3.1.1. View List

Provide a list describing the views or queries use for data analysis, summary, and reporting.

Name	*Description*
qry_summary_a	Summary query of {a}.

3.1.2. View Definition or SQL

Provide the details of the queries used for data analysis, summary, and reporting. A SQL statement may be used.

[query name]

[Field name]	[table]	{criteria}
{new field name}	{calculated field name}	

3.2. Reports

3.2.1. Report List

Define reports used for data analysis, summary, and reporting.

[report name]	[Purpose]	[Query or table]

4. References

List any associated references, such as those directly related to the protocol or to domains used.

Appendix A: FGDC Metadata

Printout of the FGDC metadata record in classic format.

Appendix B. Data types

Credits

Special thanks to John Boetch of Northern Cascades and Coast Network for documentation guidelines. Data types were adapted from documentation for Microsoft® SQL Server™ 2000. Other sources of material and information include: http://www.basenow.com/help/Data_types_in_Microsoft_SQL_Server.asp and Postgre 8.0.1 Documentation: http://www.vitavoom.com/postgresql-docs/index.html.

Table 1: List of data types for Microsoft SQL Server 2000

Data type	Definition	MS Access equivalent	Storage_size
Character data	strings consisting of any combination of letters, symbols, and numeric characters		
varchar	variable-length strings with an 8 kb limit	text or memo (size dependent)	1-8000 bytes
text	very long strings (up to 1 gb), variable length	memo	16 bytes (blob)
char	fixed-length strings with an 8 kb limit	text or memo (size dependent)	1-8000 bytes (2 bytes/char)
Numeric data	numeric data includes whole numbers, positive and negative integers, and fractions		
int	integers between – 2,147,483,648 and 2,147,483,647	long integer	4 bytes
smallint	small integers between – 32,768 and 32,767	integer	2 bytes
tinyint	positive integers between 0 and 255	byte	1 byte
bigint	very large integers from -9,223,372,036,854,775,808 to 9,223,372,036,854,775,807	text 255 *	8 bytes
decimal	fixed-point fractions with exact precision up to 38 decimal places	decimal **	variable, 5-17 bytes
float	double-precision, floating-point fractions with precision up to 15 decimal places	double	8 bytes
real	single-precision, floating-point fractions with precision up to seven decimal places	single	4 bytes
money	monetary values from – 922,337,203,685,477.5808 to 922,337,203,685,477.5807; stored as a scaled integer	currency	8 bytes
Binary data	the format in which most proprietary file types (e.g., MS Word) and image file types (e.g., JPEG) are stored		
varbinary	variable-length binary data under 8 kb in length	binary or OLE (size dependent)	1-8000 bytes (1 byte/char)
image	variable-length binary data exceeding 8 kb (documents, images, spreadsheets)	OLE object	16 bytes (blob)
binary	binary data of a fixed length (under 8 kb long)	binary or OLE (size	1-8000 bytes (1 byte/char)

		dependent)	
Other data types			
datetime	dates and times in the range from January 1, 1753 through December 31, 9999	date/time	8 bytes
bit	consists of either a 1 or a 0, used when representing TRUE/FALSE, or YES/NO	yes/no	1 bit
uniqueidentifier	128-bit hexadecimal number indicating a globally unique identifier (GUID)	replication id	16 bytes (hex)
sql_variant	can store various SQL Server–supported data types (except text, ntext, timestamp, image, and sql_variant)	text or memo (size dependent)	variable

* Because MS Access does not have a native format for 8-byte integers, data in this format are exported as text.

** In MS Access, decimal data have a precision up to 28 decimal places.

Character Data

Character data consist of any combination of letters, symbols, and numeric characters. For example, valid character data include "928", "Johnson", and "(*[factor] & (40%) + B99nh". ANSI standards define two primary character types: **varchar** (*n*) and **char** (*n*). Both of these types can store strings up to *n* characters in length. An attempt to store a longer string into a column of these types will result in an error, unless the excess characters are all spaces, in which case the string will be truncated to the maximum length. In Microsoft® SQL Server™ 2000, character data are stored using the **char**, **varchar**, and **text** data types:

- Use **varchar** when the entries in a column vary in the number of characters they contain, but the length of any entry does not exceeds 8 kilobytes (kb).
- Use **char** when every entry for a column has the same fixed length (up to 8 kb). Strings that are shorter than the declared lengths will be space-filled to the declared length. Trailing spaces are disregarded when comparing two values of this type, and will be removed when converting to another character data type.
- The **text** data type can be used to store ASCII strings longer than 8 kb.

Typically there are no performance differences between these three types, other than those conferred by the space-padding noted for the **char** data type. In general, the defined length of a character column should be no larger than the maximum expected length of the character data to be stored.

Unicode character data

To store international character data in SQL Server, use the Unicode data types: **nchar**, **nvarchar**, and **ntext** data types. Traditional non-Unicode data types in Microsoft® SQL Server™ 2000 allow the use of characters that are defined by a particular character set. A character set is chosen during SQL Server Setup and cannot be changed. Using Unicode data types, a field can store any character defined by the Unicode Standard, which includes all of the characters defined in the various character sets. Unicode data types take twice as much storage space as non-Unicode data types. Use these data types for columns that store characters from more than one character set:

- Use **nvarchar** when a column's entries vary in the number of Unicode characters (up to 4,000) they contain.
- Use **nchar** when every entry for a column has the same fixed length (up to 4,000 Unicode characters).
- Use **ntext** when any entry for a column is longer than 4,000 Unicode characters.

Numeric Data

Whole numbers

Integer data consist of negative or positive whole numbers, such as -15, 0, 5, and 2509. Integer data are stored using the **bigint**, **int**, **smallint**, and **tinyint** data types in Microsoft® SQL Server™ 2000.

- Use the **bigint** data type to store numbers in the range from -2^63 (-9223372036854775808) through 2^63-1 (9223372036854775807). Storage size is 8 bytes.

- Use the **int** data type to store numbers in the range from -2,147,483,648 through 2,147,483,647 only (requires 4 bytes of storage per value).
- Use the **smallint** data type to store numbers in the range from -32,768 through 32,767 only (requires 2 bytes of storage per value).
- Use the **tinyint** data type to store numbers in the range from 0 through 255 only (requires 1 byte of storage per value).

The **integer** data type is the typical choice because it offers the best balance between range, storage size, and performance. The **smallint** type is generally only used if disk space is at a premium. The **bigint** type should only be used if the **integer** range is not sufficient because it is definitely slower and may not function correctly on all platforms. ANSI standards only specify the **int** and **smallint** types, although the others are included as extensions and are supported by other SQL database systems.

Fractions: Fixed-point data types

Fixed-point data types store fractions to the least significant digit. Fractions are stored using **decimal** (also called numeric) data types in SQL Server. The number of bytes required to store a **decimal** value depends on the total number of digits for the data and the number of decimal digits to the right of the decimal point. For example, more space is required to store the value 19283.29383 than to store the value 1.1. The **decimal** data type can store numbers with up to 38 digits of precision and perform calculations exactly. It is especially recommended for storing quantities where exactness is required. However, arithmetic on **decimal** values is very slow compared to the integer types, or to the floating-point types described below.

We use scale and precision to describe **decimal** data type. The *scale* of a **decimal** type is the number of decimal digits in the fractional part, to the right of the decimal point. The *precision* of a **decimal** type is the total number of significant digits on both sides of the decimal point. For instance, 23.5141 has a precision of 6 and a scale of 4.

Both the maximum precision and the maximum scale of a **decimal** field can be configured. To declare a column of type **decimal** use the syntax **decimal** *(precision, scale)*. The precision must be positive, the scale zero or positive. Alternatively, **decimal** (*precision*) selects a scale of 0. It is best to always specify the precision and scale explicitly.

If the scale of a value to be stored is greater than the declared scale of the column, the system will round the value to the specified number of fractional digits. Then, if the number of digits to the left of the decimal point exceeds the declared precision minus the declared scale, an error is raised.

Decimal values are physically stored without any extra leading or trailing zeroes. Thus, the declared precision and scale of a column are maximums, not fixed allocations. In this sense the **decimal** type is more akin to **varchar** than to **char**.

The types **decimal** and **numeric** are equivalent data types. Both types are part of the SQL standard.

Fractions: Floating-point data types

The **real** and **float** data types are inexact, variable-precision numeric types. This means that some values cannot be converted exactly to the internal format and are stored as approximations, so that there may be slight discrepancies between a stored value and a printed

value. Managing these errors and how they propagate through calculations is the subject of an entire branch of mathematics and computer science and will not be discussed further here, except for the following points:

- If you require exact storage and calculations (such as for monetary amounts), use the **decimal** type instead.
- If you want to do complicated calculations with these types for anything important, you should evaluate the choices carefully.
- Comparing two floating-point values for equality may or may not work as expected.

On most platforms, the **real** (also single precision) data type has a range of at least 1E-37 to 1E+37 with a precision of at least 6 decimal digits. The **float** (also double precision) data type typically has a range of around 1E-307 to 1E+308 with a precision of at least 15 digits. Values that are too large or too small will cause an error. Rounding may take place if the precision of an input number is too high. Numbers too close to zero that cannot be represented as distinct from zero will cause an underflow error.

Monetary Data

Monetary data represent positive or negative amounts of money. In Microsoft® SQL Server™ 2000, monetary data are stored using the **money** and **smallmoney** data types. These data types store values as a scaled integer to minimize storage space and processor time. Monetary data can be stored to an accuracy of four decimal places. If additional decimal places are needed, use the decimal data type instead.

- Use the **money** data type to store values in the range from -922,337,203,685,477.5808 through +922,337,203,685,477.5807 (requires 8 bytes to store a value).
- Use the **smallmoney** data type to store values in the range from -214,748.3648 through 214,748.3647 (requires 4 bytes to store a value).

Binary Data

Binary data consist of hexadecimal numbers, which is the format in which most proprietary file types (e.g., MS Word and MS Excel) and image file types (e.g., JPEG) are stored. In Microsoft® SQL Server™ 2000, binary data can be stored using the **binary**, **varbinary**, and **image** data types:

- A column assigned the **binary** data type must have the same fixed length (up to 8 kb) for each row.
- In a column assigned the **varbinary** data type, entries may vary in the number of hexadecimal digits (up to 8 kb) they contain.
- Columns of **image** data can be used to store variable-length binary data exceeding 8 kb, such as Microsoft Word documents, Microsoft Excel spreadsheets, and images that include bitmaps, Graphics Interchange Format (GIF), and Joint Photographic Experts Group (JPEG) files.

In general, use **varbinary** for storing binary data, unless the length of the data exceeds 8 kb, in which case you should use **image**. In general, the defined length of a binary column should be no larger than the expected maximum length of the binary data to be stored.

Other Data Types

Date and Time Data

Date and time data consists of valid date or time combinations. Date and time data is stored using the **datetime** and **smalldatetime** data types in Microsoft® SQL Server™ 2000.

- Use **datetime** to store dates in the range from January 1, 1753 through December 31, 9999 (requires 8 bytes of storage per value).
- Use **smalldatetime** to store dates in the range from January 1, 1900 through June 6, 2079 (requires 4 bytes of storage per value).

There are additional data types in Microsoft® SQL Server™ 2000 to accommodate special data:

- **bit** – Consists of either a 1 or a 0. Use the bit data type when representing TRUE or FALSE, or YES or NO.
- **uniqueidentifier** – Consists of a 16-byte hexadecimal number indicating a globally unique identifier (GUID). The GUID is useful when a row must be unique among many other rows. For example, use the uniqueidentifier data type for a record identification number column to compile an NPS-wide list of sampling sites from multiple parks.
- **sql_variant** – A data type that stores values of various SQL Server–supported data types, except text, ntext, timestamp, image, and sql_variant.

Appendix 12-1:

Study Plan Agreement Template: Curation of Natural History Specimens

Study Plan Agreement Template: Curation of Natural History Specimens

Last Updated: April 29, 2005

Purpose: To be used as an example when writing contracts or agreements with principal investigators. Fill in highlighted areas.

Attachment B: ***Curation of Natural History Specimens***

Background:

The National Park Service (NPS) museum collections number more than 100 million items from over 350 units of the national park system, including natural history collections of 1,812,000 biological, 254,000 paleontological, and 67,000 geological specimens. The NPS collections are managed in parks, NPS centers, and non-NPS repositories. NPS staff and permittees collecting on park lands generate NPS natural history collections in accordance with 36 CFR 2.5. These collections are Federal property. Managers of NPS natural, cultural, and archival collections typically respond annually to more than 18,000 research requests from park staff and over 64,000 requests from non-park staff. Authority to manage these collections is in 16 USC 1-4 (National Park Service Organic Act) and 16 USC 18f (National Park Service Museum Act).

Natural History Specimens

- As natural history specimens (in this case, tree core samples) collected in a National Park are property of that park, all specimens from the park will need to be cataloged in the NPS museum collections management database, ANCS+, by the NPS Curators. University of Hawaii-Hilo, Department of Geography, should provide the NPS Curators with an electronic list of the specimens with required ANCS+ fields (in Excel).
- University of Hawaii-Hilo, Department of Geography will need to label these specimens with NPS accession and catalog numbers.
- Specimens will be on loan to the University of Hawaii-Hilo, Department of Geography, while research is being done. Upon completion, these samples will be returned to the NPS museum collections for the appropriate park, or the loan should be extended, as appropriate. If the University of Hawaii-Hilo, Dept. of Geography, would like to loan a specimen to another institution, they will need to contact the Lake Clark/Katmai Collections Manager in order to arrange for a secondary loan. NPS does not permit 3rd party loans.
- The NPS Project Leader will arrange for a loan agreement between the University of Hawaii-Hilo, Department of Geography and the NPS Curator for the natural history specimens, and the assignment of the accession and catalog numbers.

Deliverables:

- Excel spreadsheet of specimen information.
- Tree core samples (post analysis) labeled with NPS accession and catalog numbers.

- Original field notes, maps, or copies thereof on archival paper.

Curator Contact:

Jeanne Schaaf, Chief of Cultural Resources, Lake Clark/Katmai Studies Center
240 West 5th Avenue, Suite 236
Anchorage, AK 99501
Phone: (907)644-3640

Appendix 12-2:

Natural History Specimen Collections,
Curatorial Responsibilities for National Park Service Collectors

DRAFT

Natural History Specimen Collections
Curatorial Responsibilities for National Park Service Collections in the Alaska Region

You will note that your collecting permit outlines your curatorial responsibilities as the collector (see reverse side of permit). **If you collect specimens that are to be permanently retained—regardless of where they are kept—those specimens must be accessioned and cataloged into the National Park Service's Automated National Catalog system, and must bear National Park Service accession and catalog numbers.**

Before you begin collecting:

Contact the curatorial staff member at the park you are doing research at to obtain an accession number for your collection. This number must appear on all reports, field records and correspondence relating to your collection, and on the label of each specimen collected. Specimens may not leave the park until they are accessioned. If you are having trouble contacting a curatorial staff member at the park, contact the Senior Curator of the Alaska Region.

When you are finished collecting:

Contact the curatorial staff member at the park to obtain a block of catalog numbers for the specimens that will be permanently retained. When you call, please have following information ready:

- Dates collecting began and ended;
- Number of specimens collected (estimates are acceptable for large collections);
- The name, address, and telephone number of the institution in which the specimens will be curated, and the name, email and title of the individual who will be responsible for the specimens (if the specimens will not be turned over to the National Park museum collection.).

A loan agreement must be completed between the National Park Service, an authorized official of an approved curatorial facility and the Permittee prior to the removal of any specimens from the park or NPS unit.

The curatorial staff member at each park will provide technical support and information. The ANCS+ user's manual, and the Museum Handbooks provide information on cataloging, labeling and mounting procedures and are available electronically. Categories and curation standards vary based upon the discipline.

Cataloging/Labeling:

In compliance with the Code of Federal Regulations, 36 CFR 2.5 (g), all natural history specimens must be marked with National Park Service labels and entered into the National Park Service's Automated National Catalog System (ANCS+).

As part of the project, the permittee is required to catalog each specimen to the minimum standards required by the law. The permittee must provide this catalog information to the park along with the final project reports so that this information can be entered into ANCS+. The decision to accept this information in worksheet or electronic format is up to each park unit; early communication is vital to the success of your curatorial responsibilities.

Records:

All records including, but not limited to, plans, field notes, journals, field maps, drawings, raw data sheets, tape recordings, photographs, photo logs, instrument charts, map overlays, negatives, computer tapes, computer printouts, and remote sensing data (records) are, and remain the property of the National Park Service.

The above records must remain with the collection as part of the accession documentation, wherever the collection remains.

Copies of all reports, analysis, and publications resulting from research on the collection materials will be provided to the park for their files. Copies will also be included in the accession records of the curatorial facility.

Appendix 12-3:

MOU Template: Agreement between the National Park Service and [Repository] on Management of NPS Natural History Collections.

DRAFT 11/24/03

AGREEMENT
between
NATIONAL PARK SERVICE
and
[Repository]
on
Management of NPS Natural History Collections

A. Coverage

This agreement covers natural history collections (specimens and associated records, or copies) made on national park system lands identified in Attachment 1 and stored and managed by the (insert repository name [R]). The agreement covers biological collections including non-fossilized specimens of monera, algae, fungi, plantae, protista, and animalia; paleontology; and geology. It excludes cultural artifacts and human remains and natural history collections recovered from archeological and other cultural sites. The agreement applies to all collections that NPS offers and [R] accepts after the date of the last signature on this agreement. Collections made under 36 CFR 2.5 and loaned to [R] prior to this agreement will be covered by this agreement only if listed in an attachment. [Attach list of additional collections to be covered in Attachment 2.]

B. Background

The National Park Service (NPS) museum collections number more than 100 million items from over 350 units of the national park system, including natural history collections of 1,812,000 biological, 254,000 paleontological, and 67,000 geological specimens. The NPS collections are managed in parks, NPS centers, and non-NPS repositories. NPS staff and permittees collecting on park lands generate NPS natural history collections in accordance with 36 CFR 2.5. These collections are Federal property. Managers of NPS natural, cultural, and archival collections typically respond annually to more than 18,000 research requests from park staff and over 64,000 requests from non-park staff. Authority to manage these collections is in 16 USC 1-4 (National Park Service Organic Act) and 16 USC 18f (National Park Service Museum Act).

[R] has [insert number] biological, [insert number] paleontological, and [insert number] geological specimens. [Briefly describe repository's scope and areas of specialty, staff expertise, collections access policies, and research use. Include quantitative data. Describe exhibit, education, publication and other programs, as applicable.]

The current NPS Inventory and Monitoring Program, All Taxa Biological Inventory in selected parks, Natural Resource Challenge, and other programs and projects are generating NPS natural history museum collections at a faster rate than ever before. NPS is seeking viable options for effectively responding to this increased collections growth. Managing these NPS collections in partnership with [R] would provide for their preservation, enhance their research value through ongoing study and identification, and

make them readily accessible to researchers using the [R] collections. Collections from national parks will enhance the biological and geographical diversity represented in the [R] collections. [R] management of collections from units of the national park system is a desirable option.

Individual parks have always had the option of storing collections at [R] under NPS loan agreements. Managing multiple loan agreements from multiple parks may place a burden on [R] resources. This agreement will facilitate and streamline such loan arrangements for both [R] and parks and improve the ability of parks and [R] to respond to the increased collecting activity in parks. This agreement is not binding on either NPS or [R] to place NPS collections at [R] but offers both parties that option.

C. Policies

1. Both parties agree that:

    a. Specimen collection and management of park specimens and associated records, including loans, complies with NPS regulations (36 CFR 2.5) and, except as noted herein, with NPS policies, including:
        1) Management Policies (available at (http://data2.itc.nps.gov/npspolicy/index.cfm);
        2) Director's Order #24: NPS Museum Collections Management (available at http://www.nps.gov/refdesk/DOrders/index.htm);
        3) NPS procedures, including NPS Museum Handbook and the Automated National Catalog System (ANCS+) User Manual (available at http://www.cr.nps.gov/museum/publications/index.htm); and
        4) permitting procedures (available at http://science.nature.nps.gov/servlet/Prmt_PubIndex).

    b. Specimen and associated records management at [R] complies with [list applicable laws, regulations and policies specific to the repository]. It is anticipated that most [R] requirements are consistent with NPS requirements. When [R] requirements conflict with NPS requirements, NPS requirements will prevail with respect to NPS specimens.

    c. Differing requirements between NPS and [R] policies known at the initiation of the agreement have been herein identified and procedures provided in this agreement. The agreement will be amended to resolve any conflicting requirements that may be identified in the future.

    d. [R] may integrate NPS collections into the [R] collections physically in storage and through its documentation systems for management and access purposes, except that collections may not be physically integrated

where they might be exposed to pre-existing hazardous conditions in the [R] collections, such as arsenic or asbestos.

e. Parks that intend to designate [R] in a permit or in a park employee study plan must ensure that the Application for a Scientific Research and Collecting Permit or employee study plan, refers to this Agreement and names [R] in the repository signature block on page 2 of the application, in lieu of the signature of an official of [R]. [R] does not need to sign each Application. The park will send [R] copies of all permits issued in the previous calendar year that name [R] as the designated repository. [R] may require more frequent notification, but not more frequent than quarterly.

f. [R] may annually or more frequently require a park to notify [R] in advance of the types and quantities of specimens likely to be deposited with [R] within a specified future period.

2. [R] agrees that:

a. It will negotiate additional conditions, if any, for specific repository loans with individual NPS units that are consistent with this agreement, NPS regulations, permitting procedures, and NPS loan conditions. These additional conditions will be included in the park's outgoing loan agreement to [R] for the specific loan.

3. NPS agrees that:

a. When choosing a management option for park collections, priority will be given to housing those collections from the same park accession in a single repository to facilitate research and use. Superintendents may authorize housing of collections from the same accession at different repositories if, by so doing, preservation, research, and use will be improved.

D. Documentation, Information Management, and Accountability

1. Both parties agree that:

a. The collections will be at [R] as a repository loan(s) for the purpose of long-term storage and collection management, including for research and other scientific purposes.

b. The standard NPS loan conditions will apply except as noted below:
1) [R] will have authority to approve destructive sampling of most specimens without prior approval by the park superintendent. Only NPS regional directors or Washington Office associate

directors with museum collections responsibility can approve destructive sampling of rare or highly significant specimens, including holotypes, and consumptive use of specimens. Consumptive use is approved use that will expose the specimen to otherwise unacceptable wear, deterioration, destruction, or the possibility of breakage, loss, or theft. Approvals for such use are rare and given only when use of a reproduction is unsatisfactory. [R] may recommend that a park seek approval for destructive sampling of rare or highly significant specimens or consumptive use. Procedures for parks to use in seeking regional director approvals are in the Cultural Resource Management Guideline (NPS-28), Chapter 9, page 152-154, available at http://www.nps.gov/refdesk/DOrders/index.htm. *Note: For the purposes of this agreement, routine morphological dissections of holotypes, where the parts are retained, is not considered destructive sampling.*

2) [R] will have the authority to loan specimens and associated records to other qualified institutions or organizations for the purposes of exhibit, research, scientific or exhibit preparation, analysis, photography, conservation or other requested services, other than a repository loan. Such loans must meet NPS loan conditions and the standards of [R].

c. [R] and the NPS units will ensure transferability of electronic data between their respective museum collections data management systems.

d. Each will keep the other party informed, at all times, of its official contact person and appropriate e-mail addresses for each loan. Unless otherwise notified the official e-mail contact for each park will be the superintendent. Superintendent addresses take the following form using the park acronym PARK_Superintendent@nps.gov. The name and address for each superintendent is on the NPS Web site searchable by park name at http://data2.itc.nps.gov/npsdirectory/.

2. [R] agrees to:

a. Do one or both of the following:

1) Maintain ANCS+ catalog records for the specimens and associated records on loan according to the NPS Museum Handbook and ANCS+ User Manual. Record changes to other catalog records for park collections that [R] maintains in an electronic format in lieu of ANCS+ records. Record changes so that data can be imported to appropriate fields in ANCS+. Submit these changes electronically to each park by July 31 each year.

2) Maintain information on NPS collections in its own databases, to maximize the accessibility of the specimens to researchers using the [R] database. Maintain a retrievable reference to each specimen that includes:
    a) The NPS catalog number
    b) The name of "National Park Service" and the name of the national park system unit were the specimen was collected
    c) The identity of the location where the specimen was collected, by geographic locator and description,
    d) The scientific name of the specimen
    e) Identification of the specimens as Federal property and the National Park Service as "owner."

   Record changes to other catalog records for park collections that [R] maintains in its database in an electronic format in lieu of ANCS+ records. Record changes so that data can be imported to appropriate fields in ANCS+. Submit these changes electronically to each park by July 31 each year.

b. Return collections to parks if specimens and associated records are delivered by the park without accession and catalog numbers and/or specimens lack NPS labels, unless [R] agrees, in advance, to provide these services.

c. Maintain associated field records in working proximity to the specimens.

d. Recommend, to NPS, any park items that should be deaccessioned because they lack scientific, educational, historical, or monetary value. Assist NPS (the park) in prompt completion of deaccession transactions once NPS (the park) has approved a deaccession.

e. Report a loss to the lending park within 5 working days of determination of the loss. [R] will record the loss in the records that it maintains for the specimen.

f. Note damage or deterioration on the catalog record that [R] maintains for each specimen or associated record.

g. Report the following information annually to each park for the period of October 1 through September 30. Provide this report to each park (at PARK_Superintendent@nps.gov) on September 30.

1) Any damage or deterioration that has occurred to specimens or associated records in the past year. The report should include photographs, as appropriate, and dates and other details of the occurrence. Organize the report by NPS catalog number, or if a catalog number is not assigned, by NPS accession number.
2) The catalog numbers of all specimens loaned out in third-party loans, the loan recipient, and the duration of the loan.
3) The catalog numbers of specimens and associated records that were on exhibit. Identify the exhibit title, location, and duration.
4) Number of NPS research requests and number of non-NPS research requests.

h. Annually inventory all holotype specimens and specimens of high value [specify dollar value] as identified on the NPS catalog record as controlled property; and either 1) verify, at a park's request, the presence and condition of specimens that appear on a park's random sample inventory, or 2) complete a random sample inventory that includes all cataloged NPS specimens and associated records at [R] that are subject to this agreement. Use the inventory procedures in ANCS+ for the NPS specimens, or equivalent random sample procedures. Equivalent procedures may be for only the NPS specimens or for [R]'s entire collection, including the NPS specimens. If appropriate, use the ANCS+ procedures available to repositories managing multiple park collections. If, in any given inventory cycle, no NPS specimens appear in [R]'s random sample of its entire collection, [R] will randomly select and inventory 25 NPS specimens or 20 percent of the NPS specimens held, whichever sample includes fewer specimens. Certify completion of the annual inventory and report the summary findings on all missing and damaged specimens and other irregularities. Report this summary information for all specimens (NPS and non-NPS) covered by the subject inventories. If [R] uses ANCS+ to complete the inventory, submit the completed and signed inventory. Send to each park superintendent the certification and report, and, as applicable, completed and signed inventories generated by ANCS+, no later than July 31 each year.

3. NPS parks (units) agree to:

a. Accession and catalog collections (specimens and associated records) into ANCS+ or its successor and apply NPS labels to specimens prior to delivery to [R], or reimburse [R] for one or more of these services at a rate negotiated prior to finalizing the repository loan agreement, unless [R] agrees in the loan agreement to assume this responsibility at no cost to NPS.

b. Destroy, or authorize [R] to destroy, any collections judged to have no scientific, educational, historical or monetary value. Follow NPS deaccession procedures if these items have been accessioned.

c. Place collections on loan to [R]. Designate the purpose as a repository loan for "storage and collections management" and record the loan in ANCS+.

d. Amend the list of objects/specimens in an existing loan record in ANCS+ when additional items are loaned to [R] under the same conditions. If the conditions change, add those changes to the conditions in the existing loan.

e. Report and document a loss that occurs at [R] following NPS procedures in NPS Museum Handbook, Part II.

f. Record any damage or deterioration in the ANCS+ record for the affected specimen or associated records.

g. Ensure that loan, exhibit, and research request statistics reported by [R] are incorporated in each park's annual Collections Management Report.

h. For items that appear on the park's annual inventory, note in the comments column any that are on loan to [R]. Rely on [R] to inventory these items according to the provisions of this agreement.

i. By September 30 annually, replace catalog records with the revised records that [R] submits to the park.

j. Review [R]'s annual inventory and certification submission to the park. Submit a copy of this inventory and certification with the annual inventory that the park submits for its other collections.

k. Consider [R]'s recommendations for NPS to make repository loans of duplicates to a third party. Determine whether the proposed recipient institution is qualified and the loan is advantageous to NPS. If approved, document return of the duplicate to NPS by removing it from [R]'s loan, catalog the duplicate individually, and prepare a repository loan to the third party. Follow NPS loan procedures in NPS Museum Handbook, Part II, to document the loan. Include provisions in the loan requiring a Cooperative Research And Development Agreement (CRADA) if a potential commercial application is identified.

E. Preservation and Protection

1. [R] agrees to:

a. Provide storage conditions that meet or exceed NPS standards in the NPS Checklist for Preservation and Protection of Museum Collections and keep NPS apprised of all standards that are not met by identifying them on the Checklist. (Storage conditions will have been generally met if approximately 95% of NPS standards are met.)

b. Provide conservation treatment to a level that meets or exceeds NPS standards in the NPS Museum Handbook, Part I, and [R]'s standards. Document the treatment on the ANCS+ and other catalog record that [R] maintains for park specimens.

F. Access and Use

1. Both parties agree that:

a. Specimens covered by this agreement may be used for scientific, environmental conservation, or educational purposes only. Specimens will not be used for commercial or other revenue-generating purposes without the prospective user first having entered into a separate agreement (CRADA) with NPS.

b. [R] will maintain the specimens and associated records so that the public will have access to them in accordance with NPS laws, policies and procedures. Data are subject to the Freedom of Information Act (FOIA) (5 USC 552), but protected information must be withheld from non-Federal entities, as appropriate, to comply with Section 207 of the National Parks Omnibus Management Act (16 USC 5937), the Federal Cave Resources Protection Act of 1988 (16 USC 4301-4309), or any other Federal statute requiring withholding under FOIA. In cases where [R] believes that making protected information available to a third party would be beneficial, [R] will provide NPS with its analysis regarding the benefits and detriments of having the protected information released to the public and will suggest to the third party that it petition the NPS for access to the information.

Absent specific instructions from the Superintendent, [R] will not place the following data on publicly accessible portions of [R]'s catalog records and specimen labels, or otherwise make these data publicly available:

1) Data noted as restricted on the NPS catalog record.
2) Collector's private address and private contact information
3) Monetary Valuation

Unless the NPS Director specifically determines and the park gives written notification to [R] that release is appropriate, [R] must withhold, from any

form of release to non-Federal entities, information on the *nature* and *specific location* (including exact site of collecting) of

1) a national park system resource that is endangered, threatened, rare, or commercially valuable
2) a mineral with commercial value or a paleontological object or an object of cultural patrimony (for example, archeological and ethnographic objects and objects important to culturally associated groups) within the national park system.

Following consultation with and authorization by the park superintendent, [R] may release location information in a more generalized format such that its release will not reveal the specific location of the qualifying resource.

2. [R] agrees to:

a. Provide NPS full access to park collections (specimens and associated records) and related information sources at any time during regular working hours, subject to use and handling restrictions in this agreement.
b. Make specimens physically available, subject to use and handling restrictions identified in this agreement, in the NPS catalog record, in NPS policies, including the NPS Museum Handbook, and in [R]'s policies.
c. Make information about specimens available from ANCS+ and [R]'s specimen database, if different, subject to [R]'s data access policy and restrictions in this agreement, in the NPS loan agreement, and on the catalog record.
d. Allow destructive sampling that does not compromise the scientific value of the collection according to terms of a written valid research proposal; file the research proposal that [R] receives, accepts, and maintains in files associated with the specimen; record a description of the destructive sampling and the research results in the catalog record that [R] maintains for the specimen. (See D.1.b.1).
e. Cite in submitted publications about park specimens, "National Park Service," park name, specimen name, and NPS catalog number. Publications include paper-based and electronic media (including the Web).
f. Notify NPS if a user identifies a potential commercial application. Ensure that parties proposing to use specimens for commercial or other revenue-generating purposes have entered into a CRADA with NPS before so using the specimens. [R] will include a provision in loan, research and other agreements and permissions directing the user to contact NPS to develop a CRADA as needed. The wording to be included in such loans and agreements is as follows:

> If you identify or intend to develop a potential commercial or revenue-generating application based on the covered National Park Service (NPS) specimens, you must immediately notify the contact

for [R] and the NPS superintendent of the park from which the specimens originated. Contact information for park superintendents is searchable by park name on the Web at http://data2.itc.nps.gov/npsdirectory/. The superintendent will provide information on the NPS Cooperative Research And Development Agreement, which is required if you want to use park specimens for pursuit of commercial applications.

g. Upon request of the lending park, return specifically identified specimens to the park for research or litigation purposes.

3. NPS parks (units) agree to:

a. Document as a returned loan (by amending the list of objects) specimens that [R] returns at the park's request for research or litigation purposes. When the park use is concluded, return the specimens to [R], amending the list of objects to again include these specimens in the repository loan to [R].

G. Funding, Personnel, and Special Service Requests

1. Both parties agree that from time to time NPS may request and [R] may provide special services, such as posting collections on-line in the NPS Web Catalog at http://www.museum.nps.gov, making digital images, and providing non-routine conservation treatments. Funding for such services is to be negotiated and documented in an associated funding agreement, as needed.

2. [R] agrees to:

a. Bear all costs of providing routine storage, maintenance and access, unless another agreement between [R] and NPS addresses these costs.

b. Charge for access only in extraordinary circumstances, and report all access charges to the NPS Chief Curator by September 30 annually.

c. Accommodate NPS needs, from time to time, to co-locate personnel at [R] to facilitate study of NPS collections. The terms of such arrangements are to be determined in an agreement between NPS and [R] signed in advance and may include provisions for NPS personnel to provide cooperative assistance to [R].

3. NPS parks (units) agree to:

a. Assign NPS personnel to work with [R] according to terms of specific provisions agreed between [R] and NPS when such arrangements would be mutually beneficial.

b. Require any personnel co-located at [R] to abide by this agreement and follow [R] procedures for handling collections.

c. Provide funds to [R] for services rendered in accordance with any additional agreements, subject to appropriated funds.

H. Agreement Conditions

1. Both parties agree that:

a. This agreement applies to all repository loans from any parks listed in Attachment 1 to [R] for the covered collections. Specimens are on loan to [R] through a single repository loan per park that is subject to this umbrella repository agreement

b. The term of this agreement is 25 years. The agreement will be renewed for an additional 25 years unless either party has given three months written notice of intent to terminate.

c. This agreement may be amended at any time with the concurrence of both parties.

d. The term of individual park repository loans will be ten years. Individual park repository loans will be renewed every ten years unless either party has given three months written notice of intent to terminate that specific loan or this agreement.

e. Each park that has a repository loan to [R] will have a single loan with a single set of conditions. The park will amend the list of items on loan as it sends additional specimens to [R] and receives returned specimens. The park will amend the conditions as necessary.

f. The term of any associated agreement that provides NPS funds to [R] will be no more than five years. Funding agreements may be renewed for five-year periods, subject to availability of appropriated funds.

g. All park repository loans issued under this agreement will immediately terminate if this agreement terminates. Either party may terminate this agreement and all associated park repository loans without cause after giving three months written notice. Individual termination of the associated park repository loans will be according to the conditions of each repository loan.

h. If loan or agreement conditions are not being met, one party notifies the other and both agree to meet within 30 days to resolve the issue. If the

issue is not resolved and one or both parties desire termination, the three months for notice of termination, shall be deemed to have begun effective the date of notification.

i. Insurance is waived for park collections at [R].

Note: This draft has not yet received solicitor or contracting officer review. Additional required language for formal agreements will be added.

AGREEMENT
between
NATIONAL PARK SERVICE
and
[Repository]
on
Management of NPS Natural History Collections
Attachment 1: List of Parks Covered

Appendix 12-4:

SWAN Transfer of Natural History Files to Curation Excluding Object Collections.

Southwest Alaska Network
Inventory & Monitoring Program

FORM: Transfer of Natural Resource History Files to Curation (Excludes Object Collections)
Last Modified: May 10, 2005
By: D. Mortenson, Southwest Alaska Network Data Manager

Purpose:

List natural resource history products produced for the Southwest Alaska Network Inventory and Monitoring Program that should be curated. Objects, such as specimens, require further processing and consideration and are not applicable to this form. See FORM: Transfer of Natural Resource History Files to Curation, Including Object Collections.

Procedure:

1. Project Leader completes this form and submits to curator
2. Curator completes curation processing.
3. Curator returns a copy of this form to the Project Leader when curation is completed.

Were there any objects or specimens collected?	No – Proceed using this form Yes – Please complete "*Transfer of Natural History Files to Curation* ***Including*** *Object Collections*."
Today's Date:	
Curation Completion Date:	
Curator:	
NPS Project Leader & Title:	
Address:	
Data Manager:	
Accession Number:	
Catalog Number(s):	
Contract/Agreement #:	
Permit(s) #, if applicable:	
I&M Network:	
Associated Parks:	
Project Number:	
Project Title:	
Principal Investigator (PI) & Title:	

PI Address:	
Project Date Range:	
Project Directory:	
Project Abstract:	
Project Purpose:	
List Items with descriptions:	

After completion, the museum staff should:

- update any changes made to the above information, such as accession numbers
- complete the following table
- return a copy of this form to the Project Leader or Data Manager.

Archive Complete (date):	
Museum Staff:	
Museum Repository(s):	
Notes:	

Transfer of Natural Resource History Files to Archives

Today's Date: Friday, September 08, 2006

Curation Complete:

Curator:

To be Complated by Curator and returned to IM Staff

Project Name: Small mammals inventory

Network: SWAN

Project Number: SWAN-00006

NPS Project Leader: Bill Thompson, Biometrician

NPS Project Leader Address: 240 West 5th Avenue Anchorage, AK 99501

Principal Investigator: Joe Cook, University of New Mexico, Department of Biology

PI Address: 167A Castetter Hall Albuquerque, NM 87131-1091

Project Start/End Dates: 01-30-2002 12-31-2005

Project Abstract: Conduct a small mammal inventory of the Alaska's National Parks and Preserves. This project is designed to improve knowledge of the occurrence, distribution, and habitat associations of small mammal fauna throughout the Southwest Area (SWAN) Inventory and Monitoring Network.

ANCS Accession Numbers:	Associated Parks:	Permits:
KATM-00330	KATM	LACL-2003-SCI-0003
LACL-00139	KEFJ	KEFJ-2003-SCI-0004
KEFJ-00138	LACL	KATM-2004-SCI-0009

Products:

Type	Deliverable Product/Quality:		Date	Status?
Report	SWAN Small Mammal Inventory Final Report		12/15/2005	Completed
Report #:	NPS/AKRSWAN/NRTR-2005/05	**NatureBIB BIBKEY ID:** 609488	*Submitted to Archives:*	
Accession #:	unknown		1/20/2006	
Catalog #:				
File:	*CookJA_2005_SWAN_MammalsInvFinalRprt_609488a.pdf*			
Report	FY2003 KEFJ Field Season Report		8/14/2003	Completed
Report #:		**NatureBIB BIBKEY ID:**	*Submitted to Archives:*	
Accession #:				
Catalog #:				
File:	*CookJ_2003_KEFJ_SmallMammalInvPreliminaryRept_030814.pdf*			
Spreadsheet	Small Mammals Inventory Spreadsheet		8/16/2005	Completed
Report #:		**NatureBIB BIBKEY ID:**	*Submitted to Archives:*	
Accession #:				
Catalog #:				
File:	*Arctos_SWAN_SmMammalData_050816.xls*			
Report	Peer Reviewed publications			Planned
Report #:		**NatureBIB BIBKEY ID:**	*Submitted to Archives:*	
Accession #:				
Catalog #:				

Today's Date: Friday, September 08, 2006

Curation Complete:

Curator:

To be Complated by Curator and returned to IM Staff

File:

Report — FY2004 KATM Field Season Report — 11/16/2004 Completed

Report #: **NatureBIB BIBKEY ID:**

Accession #: *Submitted to Archives:*

Catalog #:

File: *CookJ_2004_KATM_SmMammalInvPrelimRept_040830.pdf*

Photographs — Opportunistic photographs of sites and events — 9/17/2003 Completed

Report #: **NatureBIB BIBKEY ID:**

Accession #: *Submitted to Archives:*

Catalog #:

File: *photos listed in directory*

Report — IARs, annually — 1/2/2005 Completed

Report #: **NatureBIB BIBKEY ID:**

Accession #: *Submitted to Archives:*

Catalog #:

File: *KEFJ, LACL, KATM completed*

GIS Data — GIS data of transects and locations of species — Incomplete

Report #: **NatureBIB BIBKEY ID:**

Accession #: *Submitted to Archives:*

Catalog #:

File:

Database — NPSpecies certification — 12/2/2005 Completed

Report #: **NatureBIB BIBKEY ID:**

Accession #: *Submitted to Archives:*

Catalog #:

File: *SWAN_MammalsCertified.zip*

Report — Study Plan and Cooperative Agreement — 12/23/2002 Completed

Report #: **NatureBIB BIBKEY ID:**

Accession #: *Submitted to Archives:*

Catalog #:

File: *CookJ_2004_SmMammalCoopAgrSWANFinal_040205.doc*

Presentation — Presentation to SWAN technical committee (and others) — 2/28/2005 Completed

Report #: n/a **NatureBIB BIBKEY ID:**

Accession #: *Submitted to Archives:*

Catalog #:

File: *CookJ_2005_SWAN_SmallMammalsInventory_050228.ppt*

Fieldnotes — Field Data Sheets — 10/15/2002 Completed

Today's Date: Friday, September 08, 2006

Curation Complete:

Curator:

To be Complated by Curator and returned to IM Staff

Report #: **NatureBIB BIBKEY ID:**
Accession #: *Submitted to Archives:*
Catalog #:
File:

Other KATM Voucher specimens - properly stored and cataloged 8/16/2005 Completed
Report #: **NatureBIB BIBKEY ID:**
Accession #: KATM-00330 *Submitted to Archives:*
Catalog #: see notes
File: *stored at UAM*

Report FY2003 LACL Field Season Report 8/14/2003 Completed
Report #: **NatureBIB BIBKEY ID:**
Accession #: *Submitted to Archives:*
Catalog #:
File: *CookJ_2003_LACL_SmallMammalInvPreliminaryRept_030814.pdf*

Other Metadata for GIS data and Tabular data. Documentation of project files and other items. Incomplete
Report #: **NatureBIB BIBKEY ID:**
Accession #: *Submitted to Archives:*
Catalog #:
File:

Other KEFJ Voucher specimens - properly stored and cataloged 8/16/2005 Completed
Report #: **NatureBIB BIBKEY ID:**
Accession #: KEFJ-00138 *Submitted to Archives:*
Catalog #: See notes
File: *stored at UAM*

Database NPSpecies Data Entry 11/28/2005 Completed
Report #: **NatureBIB BIBKEY ID:**
Accession #: *Submitted to Archives:*
Catalog #:
File: *SWAN_data_051128.MDB*

Report KATM FY2004 Annual Report 4/21/2005 Completed
Report #: **NatureBIB BIBKEY ID:**
Accession #: *Submitted to Archives:*
Catalog #:
File: *CookJ_2004_KATM_SmMammals2004AnnRept_050421.pdf*

Report FY2003 Annual Report for LACL 1/1/2004 Completed

Today's Date: Friday, September 08, 2006

Curation Complete:

Curator:

To be Complated by Curator and returned to IM Staff

Report #:
Accession #:
Catalog #:

NatureBIB BIBKEY ID: 567479

Submitted to Archives:

File: *CookJ_2004_LACL_Mammals2003AnnRep_567479.pdf*

Other — LACL Voucher specimens - properly stored and cataloged — 8/16/2005 Completed

Report #:
Accession #: LACL-00139
Catalog #: LACL 2296 - LACL 3237

NatureBIB BIBKEY ID:

Submitted to Archives:

File: *stored at UAM*

Report — FY2003 Annual Report for KEFJ — 1/1/2004 Completed

Report #:
Accession #:
Catalog #:

NatureBIB BIBKEY ID: 567480

Submitted to Archives:

File: *CookJ_2004_KEFJ_Mammals2003AnnRep_567480.pdf*

Appendix 12-5:

Form 10-127. Outgoing Loan Agreement and Conditions for Outgoing Loans

US Department of the Interior
National Park Service

Outgoing Loan Agreement

Outgoing Loan No.

NPS Unit (Lender):

(Street/Box): Telephone:

(City/State/Zip): Fax Number:

Superintendent (please print):

Shipping Address (if different):

BORROWING INSTITUTION (Borrower):

(Department):

(Street/Box): Telephone:

(City/State/Zip/Country): Fax Number:

Responsible Official (Borrower): Title:

Shipping Address (if different):

NPS Status:

PURPOSE OF LOAN:

Credit Line:

OBJECTS IN LOAN:

INITIATION DATE: **TERMINATION DATE:**

INSURANCE AND SHIPPING/PACKING:

Insurance Paid By:

Insurance Company: Policy No.:

Packer:

Shipping Paid By:

Method of Shipping: Outgoing: Return:

US Department of the Interior
National Park Service

Outgoing Loan Number

Outgoing Loan Agreement (Continued)

LOAN CONDITIONS:
Outgoing loans are subject to the same terms and conditions noted on the attached Conditions for Outgoing Loans.

Additional Loan Conditions:

SIGNATURES:

ON INITIATION OF THIS AGREEMENT: The undersigned borrower is an authorized agent of the borrowing institution. Signatures indicates agreement to terms specified in this loan agreement and attached conditions.

PLEASE SIGN BOTH COPIES AND RETURN ORIGINAL TO THE NPS.

Name of Responsible Official (Borrowing Institution), Title (Please print)

Signature Date

Name of Superintendent (Lending NPS Unit) (Please print)

Signature Date

RETURN STATUS:

Extension Termination Date:

RETURN OF LOAN:
The undersigned is an authorized agent of the lender. Signature acknowledges receipt of all material in good condition or in condition as noted on this agreement or in attached object condition report(s). A signed copy is sent to the borrower to acknowledge the return of the loan.

Name of Superintendent (Lending NPS Unit) (Please print)

Signature Date

US Department of the Interior
National Park Service

Outgoing Loan Number

Conditions For Outgoing Loans

GENERAL

1. It is the Borrower's responsibility to become familiar with stipulations covering this transaction. Responsibility for meeting the terms agreed to in this loan agreement remains with the borrowing institution and authorized agent.

2. No loans will be made until all necessary documentation has been received by the lending park, and the Outgoing Loan Agreement has been signed by both parties.

3. The borrowing institution is not permitted to make third party loans. Such loan requests shall be treated as an independent outgoing loan and negotiated between the lending park and the second borrowing institution, unless specifically agreed to in writing on the attached loan agreement.

4. Borrower agrees to incur all expenses relating to this loan unless otherwise noted.

5. Borrower agrees not to use the museum property in the loan for commercial gain.

6. If loaned material is to be displayed, the NPS shall be credited for all materials furnished as part of this loan. The credit line should read as noted on the loan agreement. The NPS is not responsible for the quality of the display or final interpretation placed on objects.

7. The Borrower shall provide to Lender a copy, at no cost, of any publication or report for which NPS objects have been lent.

8. The Borrower, in the event of a change of address, shall provide the NPS with written notification thereof within 15 days of such change.

9. Museum collections loaned to a repository for the purposes of collections management and/or storage will be cataloged according to the NPS *Museum Handbook*, Part II, and in accordance with requirements established by the lending park unless otherwise agreed to. Copies of all catalog records and electronic data will be sent to the lending park by the borrowing repository.

10. Federal policies and mandates governing NPS museum collections take precedence over state and local laws, regulations and/or statutes.

COPYRIGHT AND PHOTOGRAPHY RESTRICTIONS

1. Loaned materials are subject to restrictions outlined in the copyright law of the United States (Title 17, U.S. Code). Borrower will honor copyright restrictions as they apply to the collections and will ensure that the appropriate copyright releases are obtained.

2. Unless otherwise agreed to in writing, no reproductions are permitted by the Borrower except photographic copies for condition reports, documentation, damage, educational, and publicity purposes related to the stated purpose of this loan.

INSURANCE

1. All material shall be continuously and fully insured at the Borrower's expense for the amount specified on the loan agreement, unless waived and so noted on the agreement. Insurance shall be wall-to-wall, and provide coverage against all risks of physical loss or damage from any external causes while in transit and on location for the entire duration of the loan. Borrower shall provide proof of insurance to the lending park. The NPS must be notified in writing at least 20 days prior to any cancellation or meaningful change in the Borrower's insurance policy. If additional coverage is taken by the Borrower, the lending park must receive from the Borrower a copy of the certificate of insurance naming the lending park as an additional insured.

2. Any lapses in coverage or any failure to secure insurance and/or any inactions by the Lender regarding notice will not release the Borrower from liability for loss or damage.

3. Dollar values provided are confidential and are for insurance purposes only. The NPS reserves the right to increase the amount of insurance coverage required on the loaned objects, if reasonably justified.

4. If insurance is waived, the Borrower agrees to indemnify any and all loss or damage to the museum collections occurring during the course of the loan, except for loss or damage resulting from inherent vice, war, and nuclear incident.

5. Borrower agrees to waive all claims and recourse against the NPS for loss or damage to persons or collections arising from this agreement. Borrower agrees to defend, indemnify, and save harmless the NPS from all liability, loss, cost, or obligation on account or arising out of any injury to any person or property of any kind, from any cause whatsoever, in any way connected with Borrower's use of said property, including acceptance and redelivery thereof.

CONDITION, ALTERATION, AND CONSERVATION

1. Each object is considered to be in good condition unless otherwise noted.

2. Objects may not be cleaned, repaired, retouched or altered in any way without the express permission of the Lender.

3. Loss, damage or deterioration must be reported to the lending park. If damage occurs, it is understood that any necessary conservation treatment will be arranged for or handled by NPS staff, and that the Borrower or its insurance company is liable for all costs resulting from damage, including the cost of conservation, and for any reduction in value or replacement.

US Department of the Interior
National Park Service

Outgoing Loan Number

Conditions For Outgoing Loans (Continued)

HANDLING AND CARE

1. All physical care (e.g., handling, storage, exhibition) should meet or exceed the standards set down in the NPS *Museum Handbook*, Part I and NPS Special Directive 80-1.

2. Loss or damage, whether in transit or on the borrower's premises, and regardless of who may be responsible, must be reported immediately. Photographs and documents of the damage (e.g., condition report) with dates, names, and other details of the occurrence (e.g., damage reports) must be sent to the lending park within 5 working days of the loss or damage.

SECURITY AND ENVIRONMENTAL CONTROLS

1. Borrower must provide at all times, adequate security in order to protect objects against risk of damage, loss or deterioration due to theft, vandalism, fire, smoke, and water. Adequate protection against insects, vermin, fungi, mold and pollutants must be provided. Conditions should comply with museum standards and the NPS *Museum Handbook*, Part I.

2. Museum collections must be protected at all times against damage caused by exposure to direct sunlight, ultraviolet light, excessive humidity, or proximity to heating or cooling sources. Temperature and relative humidity levels should be monitored on a daily basis. Levels are controlled to minimize short-term fluctuations and to avoid harmful extremes. Conditions should comply with museum standards and the NPS *Museum Handbook*, Part I.

3. If these conditions cannot be met, the lending park must be advised in writing. The amended conditions should be attached to the loan agreement and noted in the additional conditions on the face of the attached agreement prior to the completion of the agreement.

PACKING AND SHIPPING

1. Packing and transportation must be by safe methods designated and approved in advance by the Lender and noted on the attached agreement. Borrower must comply with shipping and packing instructions provided by the Lender.

2. Lender will pack the collection item(s) and will provide packing materials for the loan. If required by the terms of the agreement, packing materials will be paid for by the Borrower.

3. Unpacking and repacking must be done by experienced personnel under competent supervision. The loan must be repacked in the same manner as received and with the same packing materials if possible, unless otherwise mutually agreed upon by Lender and Borrower. All packing materials should be stored, if possible, during the loan period in a place fully conditioned to the same temperature and relative humidity as those under which the loan itself is stored or displayed. All packing materials that are to be reused must be protected from contamination by insects, mold, dust, and airborne pollutants.

ACCESS

1. Access to loaned objects by individuals for purposes other than those identified on the attached agreement must receive prior approval by the Lender and must be supervised by the Borrower. Use of loaned material must be restricted to a supervised area. Researchers will be subject to the Lender's current user rules and restrictions. Borrower will be responsible for any misconduct by persons "using" materials.

2. Borrower must provide access to Lender's staff or representatives during regular hours of operations for the purposes of inspections, inventory, repacking, research and condition reporting.

3. Borrower agrees to provide access to original material only when all other options, such as photographs or reproductions, have been exhausted.

4. Borrower is subject to NPS annual inventory procedures as noted in the NPS *Museum Handbook*, Part II. Either the Borrower will confirm Lender's inventory or will provide access to the Lender to conduct inventory, as noted in the special conditions on the agreement.

EXTENSION AND RECALL

1. Any extensions of the loan period must be requested by the Borrower. The Lender will prepare extension documents to be completed and signed by the Borrower and received by the Lender at least 30 calendar days prior to the original loan expiration date shown on the attached agreement. All additional insurance will be extended by the Borrower and proof of insurance will be provided to the Lender by a copy of the certificate of insurance naming the NPS Lender as an additional insured and dated with the new termination date of the loan.

2. The Lender reserves the right to inspect or audit the objects on loan at any time. Should the Lender desire to recall any of the loan material for its own purposes, it may do so by giving at least 30 days notice to the Borrower. Loaned objects may be withdrawn by the Lender without prior written notice to the Borrower if it is determined that they are receiving improper care.

3. Borrower agrees to give at least 30 days written notice to the Lender if electing to cancel this loan prior to the term of this loan agreement.

4. Repository loans must remain at the designated repository until such time as they are requested by the lending park or until such time as the repository is unable to care for the loan in accordance with the loan stipulations. The loan may be terminated by either party, given 3 months notice, or within 30 days if the lending park determines the loan stipulations are not being met. Should the Borrower be unable to continue care for the collection it must be returned to the lending NPS park or another designated repository.

Appendix 12-6:

Instructions and spreadsheet template for transferring voucher information to ANSC+

National Park Service

Chihuahuan Desert Network
Inventory & Monitoring Program

Feb 2005

Instructions for Parks on the Import/Export of Voucher Data Into Park ANCS+ Museum Catalog Records

Voucher Data from I&M studies will be sent to your park electronically as an Excel file which has been saved as a .csv file (comma delimited). Here is how you process it to add it into your park's museum catalog record database.

(If your Lotus Notes is not on the computer that holds your ANCS+ museum records, copy the .csv file attachment onto a floppy disk and move it to your museum computer. Then drag the file icon onto your desktop or put it in a folder so that you can access it while in the ANCS+ program).

Note: Click on the word "Exit" to leave/close-out each screen.

Begin By Creating a New Directory:

This Directory will be used to temporarily hold imported data in Catalog Records, where you can check it carefully before adding it to your ANCS+ Catalog Record database. This temporary Directory can be used for importing more than one .csv file spreadsheet. (Note: Data can be lost if you inadvertently use an old catalog number, which had previously been entered in your database for another specimen, and assign it to one of your new catalog records. You would lose the old catalog record's information, and it would be replaced by the new data.)

Open ANCS+ program
Type your login name and password, and click "OK"
Click on "Utilities"
Click on "Create New Directory"
Enter a name for the Directory, such as "HOLD"
Choose "Natural History" as the type of directory
Make sure there is no check beside "Run ANCS Conversion"
Click on "OK"
Click on "Exit" on Utilities Menu, this returns you to the Main Menu

Opening to Catalog Record Screen:

From the Main Menu screen
Click on "Collections Management"
Click on the name of the directory you created above
Click on "Catalog Records"
Now you can 'Create the Import/Export Format', or if you have already done that, then skip the next section.

Creating the Import/Export Format:

Data will be sent to you in the form of an Excel spreadsheet saved as a .csv file. Now you will create a temporary catalog record template for importing the data into.

Click on "Select".

Click on “Tag”.
Click on “Import/Export Selected Fields”.

Click on “**Create Import/Export Format**”:

This template can be reused for more than one Natural history .csv file as long as the column headings in the .csv file match the exact order and wording in the “Record Fields” list below.

“Export Name” - Enter a name of 8 characters or less, such as “Test”.

“Export Description” - Enter a description of what data you are creating a format for, such as “temporary file for import/export of I&M natural history data to check before permanently adding it to the park’s museum catalog records”.

Select ASCII delimited.

“Field Delimiter” – Enter a comma (,) or hit “Tab” if it is entered automatically.

“Field Delimiter ASCII Code” – This blank is automatically filled, hit “Tab”.

“Text Indicator” – Enter quotations (“) or hit “Tab” if it is entered automatically.

Catalog Record Fields – The list of field names is on the left side of the screen. This will be in the exact order of the headings as they appear in the .csv spreadsheet sent to you. (The first field must always be “Catalog #”. The order of the remaining fields is flexible, as long as it matches the order of the .csv file). Click on the field name to highlight it and click on “Add Item”. In this way, build the format in this **EXACT ORDER** using the following fields (click on “OK” after each entry):

Catalog #
Ctrl Prop
Class 1
Class 2
Class 3
Class 4
Sci. Name
Common Name
Exotic/Native
Accession #
Location
Object Status
Status Date
Item Count
Storage Unit
Description
Collector
Collection #
Collection Date
Condition
Cataloger
Identified By
Locality
Park
County
State
UTM Z/E/N
Lat LongN/W
Elevation
Habitat
User 1
User 2

Click on “OK”

Importing the csv.file

Click on "Import"
Click on the name you gave the import/export format you created
Navigate on the computer to the place where you saved the .csv file you were sent, click on it to highlight it and click "OK"
Click "OK" on the box that appears to say the .csv file will be converted to a .txt file
Generally, problems will have been corrected before being sent to you. A pop-up box will tell you how many files have been imported. This should not be more than the number of catalog numbers on your spreadsheet. Occasionally the numbers are quite a bit greater which means that there was a problem in the importing. A box will also inform you if the order or spelling in the record field format doesn't match the format in the .csv file. An adjustment of the .csv file will usually correct the problem.
Don't do anything with the box that says conversion is complete
Click "OK" on the box that tells you to reclassify and run sweep
Click on "Exit"

Checking the imported catalog records

If you are already at the 'Catalog Record Screen', then follow the directions below. If not, first follow 'Directions to Catalog Record Screen' listed above.

Click on "Record"
Click on "Get"
Enter the park four-letter code in the "Acronym" blank (ex: BIBE)
Enter the first catalog number of the group you want to check (ex: 41752)
Click "OK"
Then you can check the information given on each of the tabs by clicking on the tab name (Registration, Catalog, Coll. Site, Biology, Park). Not all catalog record fields will have data. Review the records and spot check the information against the data provided on the csv.file.

Moving Catalog Records from the temporary Directory to your permanent ANCS+ database.

When the review is complete, then refer to the instructions provided at the website: www.RediscoverySoftware.com

Click on Support
Click on NPS Support/Frequently Asked Questions
Click on White Paper Instructions
Click on Centers and Contractors, Part 2
Click on Transferring Records from New Directory to Main Park Directory

NPS-Chihuahuan Desert Network Inventory & Monitoring Program (Feb05)
FORMATTING INSTRUCTIONS FOR IMPORTING DATA INTO ANCS+

This template is for biological specimen (including vascular plants and vertebrates).
Cell format cannot have borders or wrapped text and must be horizontally aligned to the left.
The first field must be the Catalog #. The order of the remaining fields is flexible, but the column header names in the ANCS+ template and in the data spreadsheet (to be imported) must match.
Column headers shown in blue are mandatory fields required in ANCS+. Other fields may be added when creating the Catalog Record template, but the spreadsheet must match it. *See p. 3:16-7, 6:19-32

CATALOG #	CTRL PROP	CLASS 1	CLASS 2	CLASS 3	CLASS 4	SCI. NAME	COMMON NAME
Examples:							
BIBE 41886	N	BIOLOGY	ANIMALIA	MAMMALIA	MURIDAE	Peromyscus __ __pectoralis	WHITE-ANKLED MOUSE
AMIS 41538	N	BIOLOGY	PLANTAE	DICOTYLEDONEAE	ASTERACEAE	Xanthium __ __strumarium	N/A
Number should be 12 characters long. Adjust the number of spaces in the middle so that it comes out to 12 characters. *See p. 2:161.	**Y or N. *See p. 2:155.**	**BIOLOGY. *See p. 2:155-158.**	**Catalog Record will backfill with correct name when CLASS 4 name is entered. *See p. 2:155-158.**	**Catalog Record will backfill with correct name when CLASS 4 name is entered. *See p. 2:155-158.**	**Name of Family. (After importing, get in 'Modify' mode. With cursor in Class 4 field, hit "Tab". Class 2 and 3 fields will backfill automatically.) *See p. 2:155-158.**	****In the instructions below, you may not have entries for all fields. Genus & species names should not be capitilized. (See example above) *See p. 2:158-161. Note line 22 on p. 2:158 should read "space, underscore, underscore" rather than "underline".**	***See p. 2:161.**

***Refer to: *NPS ANCS+ User Manual (1998)* for additional instructions on completing each field.**
The manual can be accessed on the web at: http://www.cr.nps.gov/museum/publications/ancs.html.

****Instructions on how to format a scientific name from NPSpecies spreadsheet to ANCS+:**

Sci. Name		Genus	Species modifier	Species	Species Authority	Species Date
Acris __ __cr	Acris __ __(	Acris		crepitans		

This is the CONCATENATE process for formatting scientific names: Each scientific name would be made up of the following fields: Genus, species modifier, species, species authority, species date, subspecies, subspecies authority, subspecies date, etc. There is a "space, underscore, underscore" for each space between fields and for each blank field. Click on cell C22 (column and line number), then look at box "fx" for an example

of how to do the data formatting formula called "Concatenate". Before you begin the CONCATENATE process, insert two columns to the left of your column heading "Genus". Then, type the formula in the cell to the left of the first line of data in the "Genus" column (cell C22 in the example above). When it is complete, then hit "Enter". Then right click on "copy" and highlight all the cells in that column (to the left of the "Genus" column) that you want to format and hit "Enter". Highlight the letter at the top of column (C in the example above) and right click, then click on "copy". Click on the top of the next column to the left (B in the example above) and right click, then click on "Paste Special". Click on "Column widths" and then on "Values and number formats". Click "OK". Then the column to the left of the "Genus" column can be deleted (column C in the example above).
Note: Click on an individual cell and look in the "fx" line to see the complete entry in that cell.

Properly formatted Scientific Name should appear as below (see cell B22):
Acris __ __crepitans __ __ __blanchardi __Harper

EXOTIC/NATIVE	ACCESSION #	LOCATION	OBJECT STATUS	STATUS DATE	ITEM COUNT	STORAGE UNIT	DESCRIPTION
Native	BIBE-01490	Texas Cooperative V	Loan out - Non-NP	2005	50	EA	Male, SE= scrotum
EXOTIC	AMIS-00291	UT-Austin-1187	LOAN OUT - NON	2005	1	EA	
***See p. 2:179.**	**Number should be 10 characters long. Adjust the number of zeros preceding the number, so that it comes out to 10 characters. *See p. 2:162**	**Expandable field. Includes Repository and Repository Catalog Number. *See p. 2:163.**	**Choose from list. LOAN OUT - NON-NPS or STORAGE. *See p. 2:164.**	**Four-digit fiscal year. *See p. 2:164.**	**For individual or lot cataloging. *See p. 2:165**	**EA *See p. 2:165.**	**reproductive status of mammals; identifies specific parts used for other purposes (i.e., genetic or diet analyses). This information may be found in 1 or more fields from the NPSpecies spreadsheet. Expandable field. *See p. 2:166.**

Subspecies	Subspecies Authority	Subspecies Date
blanchardi	Harper	

COLLECTOR	COLLECTION #	COLLECTION DATE	CONDITION	CATALOGER	CATALOG DAT	IDENTIFIED BY	LOCALITY	PARK	COUNTY
Dayton, Gage	GHD 13580	8/26/2002	COM/FR	Buehler, Emily	10/30/2004	Dayton, Gage	0.2 mi. north o	BIBE	Brewster
POOLE, JACK	3969	10/9/2003	COM/GD	BUEHLER, EM	1/10/2005	POOLE, JACKIE	MOUTH OF C/	AMIS	VAL VER
Last name first, then first name, as shown on the research permit for consistency. *See p. 2:166.	***See p. 2:167.**	**†*See p. 2:167.**	**Choose from list. *See p. 2:167-168.**	**(Put your name in here). Last name first, then first name. *See p. 2:169.**	**This column header will not appear on data sent from the I&M program, but the column header has been recommended for inclusion in the future. *See p. 2:169**	**Last name first, then first name. *See p. 2:169-170.**	**This data comes from the Specimen Collection Site Description field in NPSpecies spreadsheet. *See p. 2:172.**	***See p. 2:172.**	***See p. 2:173.**

†Formatting Dates:

Highlight the column you would like to format by clicking on the letter at the top. Then click on "Format", click on "Cell", click on "Number", click on "Date", and click on "*3/14/2001".

STATE	UTM Z/E/N	LAT LONGN/W	ELEVATION	HABITAT	USER 1	USER 2
TX		__29 __20 __1	1200 m.	Incised channel with sweet aca	UTM's obtained from Map	†††Project funded by CHDN I&M Program.
TX	14/310476/3282236		4500 ft.	FOUND WITH BOTHRIOCHLO	FOR ADDITIONAL INFOR	†††Project funded by CHDN I&M Program.
*See p. 2:173.	***See below for formatting. *See p. 2:174.	Z/E/N or LAT LNGN/W data is known, then put UNKNOWN in this column. *See p. 2:174. Note: formatting should be "space, underscore, underscore" rather than "underline".	*See p. 2:175.	Expandable field. *See p. 2:176-177.	For additional comments. This information will typically be found in the Notes column in the NPSpecies spreadsheet.	not a field to identify work funded by the Inventory and Monitoring Program, we have inserted a statement in this field. CHDN = Chihuahuan Desert Network & I&M = Inventory & Monitoring.

***To format UTM Z/E/N:

Here is the formula to CONCATENATE UTM: =CONCATENATE(A3,"/",B3,"/",C3) where
cell A3 would be UTM Long. Zone, cell B3 would be UTM Easting, and cell C3 would be UTM Northing.
The process follows the same general instructions as for formatting scientific name.

Click on cell AA13 in the example above to see a completed UTM Z/E/N format in the "fx" box.

(Click on cell AB12 in the example above to see a completed LAT LONGN/W format in the "fx" box).

Master Template *(Example Data Shown Below)*

NATIONAL PARK SERVICE

CHIHUAHUAN DESERT NETWORK INVENTORY AND MONITORING PROGRAM

PROJECT TITLE:

PRINCIPLE INVESTIGATOR:
AGENCY OR INSTITUTION:
CONTRACT OR AGREEMENT NO.:
NPS SCIENTIFIC PERMIT NO.:
START YEAR:
END DATE:
CONTRACT AMOUNT:

I&M Network	NPS Unit	Collection Date	Collector	Field/Collector/ Site No.	Quantity	Bulk Container Unit no.	NPS Accession No.	NPS Catalog No.
Example CHDN	RIGR	4/3/2003	John Doe	Fresno Creek-01	3.0	FC-01	RIGR-00780	RIGR 103
Example CHDN	RIGR	4/3/2003	John Doe	Fresno Creek-01	1.0	FC-02	RIGR-00780	RIGR 104

References:

Note:
Record UTM coordinates to nearest whole number (meter).
Please cite references used.

Repository	Repository Catalog No.	State	County	Habitat	Specimen Collection Site Description	UTM Long Zone
TCWC	675	TX	Brewster	Shallow ripples (<0.75 m deep), dense moss cover on rocks & water temp. <15° C	Found in shallow ripples (<0.75 m deep) where Fresno Creek entered RIGR	13
TCWC	677	TX	Brewster	Coyote willow thicket	Trap was 2m up in the willows, along the west bank of Fresno Creek as creek entered the RIGR	13

UTM Easting	UTM Northing	UTM Datum	Elevation (m)	1:24,000 Quad Name	Additional Material Collected	Material (Tissue) No.	Notes
668241	3229612	WGS 84	1250	North Fresno Creek	yes	14817	This collection is comprised of 3 samples from a plankton net tow. Species have not been identified
668590	3229234	WGS 84	857	Little Man Draw	no		This collection is comprised of 1 light trap sample

Master Template (for either vouchers or observations)[a]

NATIONAL PARK SERVICE

CHIHUAHUAN DESERT NETWORK INVENTORY AND MONITORING PROGRAM

PROJECT TITLE:
PRINCIPLE INVESTIGATOR:
AGENCY OR INSTITUTION:
CONTRACT OR AGREEMENT NO.:
NPS SCIENTIFIC PERMIT NO.:
START DATE:
END DATE:
CONTRACT AMOUNT:
TAXONOMIC REFERENCES[b]:

I&M Network	NPS Unit	Collection Date	Collector[c]	Field/Collector No.	NPS Accession No.[d]	NPS Catalog No.[e]	Repository	Repository Catalog No.	Item Count	Order	Family	Genus
EXAMPLE CHDN	BIBE	4/3/2003	Borgmeyer, James	14817	BIBE-01484	BIBE 41800	TCWC	675	1	Anura	Ranidae	Rana

a Separate spreadsheets should be done for vouchers and observations from the same project.

b Please provide full citations on all reference material used.

c Last name, then first name as shown on the research permit.

d Number should be 10 characters long. Adjust the number of zeros preceeding the number, so that it comes out to 10

e Number should be 12 characters long. Adjust the number of spaces in the middle so that it comes out to 12 characters.

f Common name may not be appropriate for all taxa.

g Native = native to park unit; Introduced = native to U.S., but outside of the park unit; Exotic = not native to the U.S.

h Generally pertains to mammals. Codes for males: SE= scrotum extended, SA= scrotum abdominal, UN = unknown;
Codes for female: RE = recurring estrus; IA = inactive, PR = pregnant, LA = lactating, UN=unknown.

i Record UTM coordinates to nearest whole number in meters.

These data fields will be required for all CHDN I&M funded projects. For individual park sponsored projects, additional data may be collected, but at a minimum, these fields should be considered the basic data required. This will greatly assist the I&M Data Manager and the park curators in overall data base management, as well as inputting the data into ANCS+.

Species	Authority (1)	Year	Subspecies or Variety	Authority (2)	Year	Common Name[f]	Nativity[g]	Reproductive Status[h]	State	County	Habitat
berlandieri	Baird	1859				Rio Grande Leopard Frog	Native		TX	Brewster	Found at 2000 h in slickrock pool in drainage with cattails.

Specimen Collection Site Description	UTM Long Zone	UTM Easting[i]	UTM Northing[i]	UTM Datum	Elevation (m)	1:24,000 Quad Name	Additional Material Collected	Material (Tissue) No.	Notes
Sierra Quemada, Fresno Creek drainage. 1.1 km. SSE of Tortuga Mountain.	13	668241	3229612	WGS 84	1250	VAL VERDE	yes	14817	Clipped toes off right rear foot for DNA.

Appendix 12-7:
ANCS+ Catalog Data Fields

CATALOG DATA FIELDS INDEX

Archeology Data Fields

* Mandatory Field

\- Must enter Item Count or Item Quantity

\+ Must enter Field Site Number, State Site Number, Site Name, or Within Site Provenience. The program enters Not Provided in all these fields if you don't complete at least one of these fields.

@ The program enters Not Provided if you don't complete this field.

CATALOG DATA FIELDS INDEX

Ethnology Data Fields

* Mandatory Field

\- Must enter Item Count or Item Quantity

\+ The program enters Not Provided if you don't complete this field.

CATALOG DATA FIELDS INDEX

Archival/Manuscript Data Fields

* Mandatory Field

\- Must enter Item Count or Item Quantity

\+ The program enters Not Provided if you don't complete this field.

CATALOG DATA FIELDS INDEX

History Data Fields

* Mandatory Field

\- Must enter Item Count or Item Quantity

\+ The program enters Not Provided if you don't complete this field.

CATALOG DATA FIELDS INDEX

Biology Data Fields

* Mandatory Field

\- Must enter Item Count or Item Quantity

\+ Must enter Latitude and Longitude, Township/Range/Section, or UTM Coordinates.

@ The program enters Not Provided if you don't complete this field.

CATALOG DATA FIELDS INDEX

Geology Data Fields

* Mandatory Field

\- Must enter Item Count or Item Quantity

\+ Must enter Latitude and Longitude, Township/Range/Section, or UTM Coordinates.

@ The program enters Not Provided if you don't complete this field.

CATALOG DATA FIELDS INDEX

Paleontology Data Fields

* Mandatory Field

\- Must enter Item Count or Item Quantity

\+ Must enter Latitude and Longitude, Township/Range/Section, or UTM Coordinates.

@ The program enters Not Provided if you don't complete this field.

Appendix 12-8:

Link between I&M and Archives, Inventory Program, Alaska Regional Meeting, January 30, 2004 Minutes

INVENTORY PROGRAM
ALASKA REGIONAL MEETING

Link between I&M and Archives

Morning of January 30, 2004
Minutes

ATTENDEES

Anchorage:
Sara Wesser, AKRO Coordinator
Dorothy Mortenson, SWAN Data Manager
Bill Leacock, SWAN Inventory Coordinator
Stephanie Stephens, AKRO
Katie Myers, LAKA

Fairbanks:
Jefferson Jacobs, ARCN Inventory Coordinator
Doug Wilder, CAKN Data Manager/Inventory Contact

AGENDA

- Packaging materials for Archives
- Packaging materials for Network "Working Copy"
- Guidelines
- News and Issues about NPSpecies and ANCS+
- Funding and strategies

ARCHIVES:

Current status of Inventory Materials:
None of the networks have started to put materials into archives yet. This is new information to ARCN, as Jefferson is a new employee. SWAN has been discussing with LAKA office and will have some materials to send soon. CAKN has not yet addressed this, but will talk to Jeff Rasic (sp). The potential solution is to have Jeff R. enter the information into ANCS+ and send the materials to be stored to the Anchorage facility. Jefferson will be looking into a similar solution. Storage is an issue in Fairbanks.

What to do with duplicate vouchers:
If the network feels adequate collections have been made of a species, the duplicate specimens should first be offered to the parks as a "working copy". If the parks do not want these specimens, they should be offered to the University of Alaska Anchorage, as they are starting to build a collection.

What to receive from the PI and where does it go:

Archive serves the purpose of long-term preservation of Park Service property. The Networks, however, will also want a "working copy" of some materials that are easily accessible in the office.

Archives should receive a copy of all materials collected for a project (a collection) or should know where the collection is stored.

The Networks should strive for a "paperless" environment and recieve as much information electronically as feasible. Some materials will still need to be delivered as hardcopy, such as reports.

Deliverables to Archives:

1) Completed archive form **(will get copy from Katie)**
2) Report of Vouchers (from NPSpecies or other database)
3) One of the following:
    a) A box containing all of the materials for the collection, following the materials guidelines[1] where reasonable OR
    b) The location of the collection, such as a park archive or university or other archival facility.

[1] **The materials guidelines are referring to a 1-2 page guidelines sheet provided by Archives and reviewed by I&M.** For example, the type of paper to use, etc.

When asking PI for materials, ask for the originals. If the PI is unwilling to part with the originals, a copy of the originals on acid-free paper is acceptable. (Please refer to materials guidelines for media specifications).

All materials should have the accession number written on them to be able to tie the project together.

The appropriate archive staff will enter the information into ANCS+ and process the collection as needed for archival purposes.

Deliverables to Working I&M Copy:

1) Hard copy of reports
2) Backup media such as CD, DVD
3) Special project specific media such as videos, special photos, posters, etc.
4) Digital copy (CD or DVD) of reports, data, photos, scanned notebooks, etc.

Whether to scan the materials and store the information electronically is a network specific decision. SWAN has decided that, as much as possible, the information will be stored electronically. CAKN has decided this is not of interest at this time. ARCN and SEAN have not weighed in yet.

Project Numbers:

The I&M Program has elected to use a similar numbering system as the Accession numbers, such as park code – five digit sequential number. For example: SWAN-00001. The problem with considering these accessions is that ANCS+ does not yet recognize the Network. The database still associates with a park's collection. The I&M Program will use the network system, **while Stephanie will approach this subject at a service-wide level.**

Notes about the archives and 3-D storage facilities:
The Anchorage office stored the 3-D materials in one room and the archival materials in a similar type of room across the hall. LAKA has a similar facility. The University in Fairbanks, however, has a fragmented facility. 3-D materials are stored in one place, while archives for the same project are stored in archives across the campus.

Access to ANCS+:
ANCS+ can be available on the web. Stephanie thought that Sitka and possibly Klondike are using this service. It costs about $400 per park per year to provide this service. The problem is the database still needs a lot of cleanup before it is ready to be accessible on the web. In the meantime, Todd from LAKA has developed a "how to" procedure for creating a PDF file of the information in ANCS+. Todd is planning on writing an article**. Stephanie will make sure every one gets a copy of it.**

Funding Strategies:
Even if the Networks had money to contribute to archive (which was suppose to be in everyone's budget), the problem is staffing. Partial payment is not enough to hire a body to do the work. During the meeting we discussed possibly saving the materials to be archived at one time, where all networks chip in to hire a person temporarily. After the meeting, however, Bill decided not to wait till the end and to start working with the AKSO and LAKA offices for a solution. Each network should decide how they will handle this problem.

Inventory vs. Monitoring:
Inventory continues to be the guinea pig in the task of getting materials archived. The hope at the present time is the inventories will pave the way to a procedure that can be followed by monitoring.

ANCS+, NPSpecies, and issues with both:
Looks like NPSpecies is suppose to have an export function to ANCS+ by the end of February. It was noted there are mandatory and optional fields in ANCS+ that are not in NPSpecies that may have been collected by the Inventory PIs.

ANCS+ has a problem with the scientific names, in that the "pick list" is not a current list of species. Stephanie has a temporary work around, but this is an ongoing issue with ANCS+ that will need to be dealt with at a service-wide level.

How much ANCS+ and NPSpecies should be synchronized or cleaned up is an issue. Because NPSpecies will be getting cleaned up, it was recommended not to tackle this until this effort is complete. It is also suggested the archive staff submit a PMIS statement for a future year to deal with this issue.

Database Coordination:
The Inventory Coordinator should be coordinating records being entered into NPSpecies and for information passing between non-NPS sources and the archives. The data managers should also be informed of the decisions and help to coordinate the NPSpecies database updates.

TO DO LIST:

Deliverable: Collection Form

- Katie – Provide a Collections Form to Bill and Dorothy
- Bill and Dorothy – Review the above list, modify if needed, and send out for wider review, if needed.

Deliverable: Guidelines from I&M to Archives

- Stephanie – provide the 1 page list of guidelines
- Bill and Dorothy – review the above and revise as needed to make a guideline.

Deliverable: Guidelines to Access ANCS+

- Stephanie and Katie – Todd's procedure to get into PDF. Notify if there are other developments.

Coordination: Service-wide Issues

- Doug and Dorothy – keep up to date on NPSpecies/ANCS+ development
- Stephanie – What about adding Network codes to accessions?
- Stephanie – What about updated scientific names?

Coordination: Region-wide Issues

- Stephanie, Jefferson, Bill, Doug, Sara, Lewis – Stephanie should consider work that may need to be done in the future; submit PMIS project. Coordinate with Sara and Inventory Coordinators on this workload.

Coordination: Network Issues

- Stephanie – Will be visiting Fairbanks and Denali in May. Can discuss with Jefferson, Doug, Jeff, Carl, and others, as needed.
- Doug – Has a box of stuff ready to go for Yukon Charlie. Will work with Jeff R. to get these archived and may send to Anchorage.
- Bill – Has some materials ready to go. Will talk with Katie and Stephanie about these materials.

- Bill, Doug, Jefferson, and Lewis – Sort out funding situation for getting materials archived.
- Bill – Determine how scanning of materials will get done.